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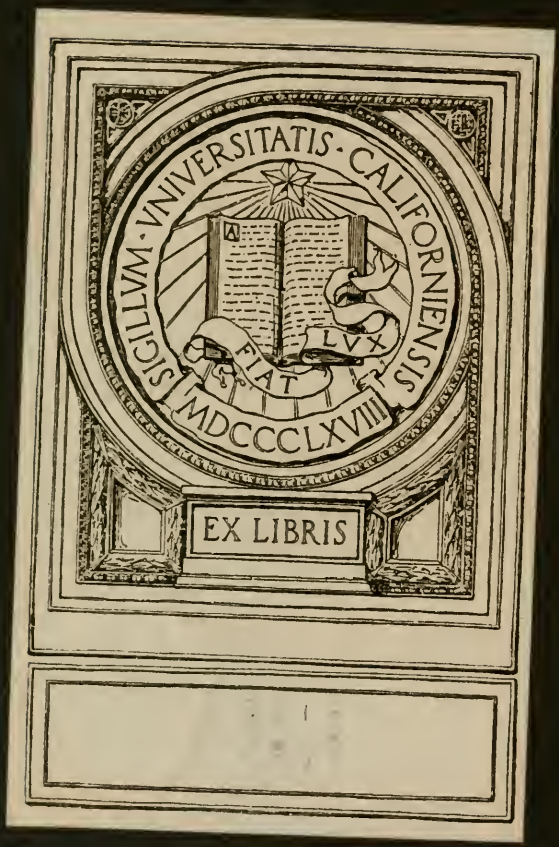
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STUDIES IN POLITICAL SCIENCE

# MUNICIPAL ADMINISTRATION IN GERMANY

## AS SEEN IN THE GOVERNMENT OF A TYPICAL PRUSSIAN CITY, HALLE a/S.

BY
EDMUND J. JAMES, PH.D.
Professor in the University of Chicago

CHICAGO
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RELATION OF THE MODERN MUNICIPALITY TO THE GAS SUPPLY. *American Economic Association, 1886.*

THE CITY GOVERNMENT OF PHILADELPHIA. *Philadelphia, 1893.*

THE CHARTERS OF THE CITY OF CHICAGO. PART I, THE EARLY CHARTERS. *Chicago, 1898.* PART II, THE CITY CHARTERS, 1838–1851. *Chicago, 1899.*

THE GROWTH OF GREAT CITIES IN AREA AND POPULATION. *American Academy of Political and Social Science. Philadelphia, 1899.*

THE CITY COUNCIL OF BERLIN. *American Journal of Sociology, November, 1900.*

THE PARIS UNDERGROUND RAILWAY — LE METROPOLITAIN. *Report of Street Railway Commission. Chicago, 1900.*

STREET RAILWAY FRANCHISES IN THE CITY OF BERLIN. *Journal of Political Economy, March, 1901.*

THE STREET RAILWAY SITUATION IN CHICAGO. *Chicago, 1901.*

MUNICIPAL OWNERSHIP OF QUASI-PUBLIC UTILITIES. *Address before the Merchants' Club of Chicago. Chicago, 1901.*

CITY ADMINISTRATION IN GERMANY. *American Journal of Sociology, July, 1901.*

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## INTRODUCTION.

The present monograph contains a brief account of municipal organization and administration in Germany as seen in the actual government of a typical Prussian city. The limits of space set by the publisher prevented a full discussion of any of the subjects treated in the book. But it is hoped that even this brief presentation may contribute to a clearer understanding of actual conditions prevailing in German cities. The thanks of the author are due to the members of the city administration of Halle a/S. for their unfailing courtesy in answering what must often have seemed to them tiresome questions. Special obligation is also acknowledged to the members of the *Magistrat*, and more particularly to the accomplished and obliging head mayor of the city, the Honorable Mr. Staude.

# CHAPTER I.

## Organization of the City Government.

The city of Halle, called usually Halle-on-the-Saale, to distinguish it from other cities of the same name in Germany, is situated near the head of navigation on the river Saale, twenty miles northwest of Leipsic and one hundred miles southwest of Berlin. It is one of the most ancient cities of northern Germany, having a history based on written records running back nearly eight hundred years, at which time it was already a city of considerable size. It is first mentioned as a city in the year 1024, but was included in a grant of land made by Otho the First in the year 961, and was possibly the Burg Halla, which name appears in old documents from 806 on. It had become the second city in the archbishopric of Magdeburg as early as the first part of the twelfth century, and grew rapidly in industry and power until it was important enough to be accepted as a member of the Hanseatic League at least as early as 1281. From that time on it has been an important city in that portion of Germany in which it is situated, though long since surpassed in wealth and population by its near neighbor and former rival — Leipsic.[1]

Since the latter part of the forties it has grown steadily, and at times rapidly, becoming of late a great railroad and industrial center. The population, which was about 30,000 in round numbers in 1850, had become 42,000 in 1860, 51,000 in 1870, 71,000

[1] *Cf. Die Stadt Halle nach amtlichen Quellen historisch, topographisch, statistisch dargestellt,* von C. H. Freiherrn vom Hagen. Zwei Bände, Halle, 1867; und drei Ergänzungshefte, Halle, 1868–72. This work is, in a certain sense, a continuation of the *Beschreibung des Saalkreises und der Städte Halle, etc.*, von J. Chr. von Dreyhaupt. Zwei Folianten, 1749–50, revised and continued by Professor Stiebritz in two volumes, 1772–73. It is a mine of information, relating not merely to Halle, but also to the general system of administration of the time. Referred to subsequently as vom Hagen.

in 1880, and 101,000 in 1890.[1] The last census, of December, 1900, showed a population of 155,000, including the suburbs annexed April 1, 1900. It is, therefore, a rapidly growing middle-sized city, in the way of becoming a great city before many decades.

It may fairly enough be taken as a type of the modern, rapidly developing German city of medium size. Its financial, governmental, economic, social, sanitary, and educational problems have been those of an old city, with a style of building, habits of life, and standards of public comfort characteristic of the eighteenth century, which has suddenly had to face all the embarrassments growing out of a rapidly increasing population, with an ever more imperative demand for all the modern improvements of city life.

It has had to adjust itself to the new conditions under a form of government which was established in its outlines in the early part of this century, at the time of the Stein and Hardenberg reforms — somewhat modified about 1830, and again in 1853, but since that time remaining practically unchanged.

It would be difficult to find an American city growing from 30,000 in 1850 to 150,000 in 1900, which has not changed its form of government a half-dozen times. It will be of interest, therefore, to examine this scheme of governmental organization, which, adopted for a small city, belonging essentially to the last century, has been found satisfactory for a modern city of the highest type.

The city of Halle forms an independent circle — the ultimate unit in the scheme of administrative organization of the Prussian state. It is a part of the government district of Merseburg, which itself is a subdivision of the province of Saxony — one of the twelve great divisions of Prussia. The city authorities are subject in many respects to the supervision of the higher

[1] *Cf. Die Stadt Halle im Jahre 1891.* Festschrift für die Mitglieder und Theilnehmer der 64. Versammlung der Gesellschaft deutscher Naturforscher und Aerzte. Herausgegeben im Auftrage der städtischen Behörden von STAUDE, OBERBÜRGERMEISTER, DR. HÜLLMANN UND DR. FREIHERRN VON FRITSCH. Halle a/S., 1891. Referred to subsequently as *Festschrift.*

administrative officials of the government district, of the province, and of the state.

The area of the city circle is 9.6 square miles;[1] the population at the end of October, 1899, 129,510. The area of the government district of Merseburg is 3,980 square miles, the population 1,075,569. The area of the province of Saxony is 9,750 square miles. The population in 1895 was 2,698,549—not differing much in area and population from that of Massachusetts and Rhode Island combined (9,135 square miles; 2,604,000 [1890]).

The city authorities in Prussia, like those in our own country, are not merely organs of local self-government, but are also the local agents for the performance of many general functions imposed upon them by the district, province, state, and even the imperial governments. It is impossible to comprehend the functions of the city authorities, and the relations of one department in municipal administration to another, without keeping this fact in mind.

The city authorities may be classified as the *Magistrat*, or administrative board, the city committee, the city council, the city civil service, and the deputations or joint committees.

The most striking and peculiar feature of city government in Prussia is the so-called *Magistrat*, a term which may be translated as the magistracy, the board of magistrates, or board of aldermen, or, with reference to its most important function, the executive or administrative board. The last-mentioned term, namely, administrative board, will be used to describe this body in the present work.

[1] April 1, 1900, the area and population of the city were materially increased by the annexation of three suburbs, enlarging the area to 15.6 square miles, and adding 23,134 souls to the population, making a total of 152,644, as ascertained by the police census. As the details of this union have not been worked out in the published reports of the city, the data of this work refer to the old city, except where the contrary is stated.

*Cf. Berichte über den Stand und die Verwaltung der Gemeinde-Angelegenheiten der Stadt Halle a/S. für 1899–1900.* These reports on the administration of the city have appeared annually since 1881–82, and two volumes appeared before that covering the period 1870–81, thus connecting with the vom Hagen work. Referred to subsequently as "Administrative Reports."

The administrative board of the city of Halle consists regularly of seventeen members, including the mayor, who is the presiding officer and director of the board. Eight of these are salaried members and nine unsalaried. The eight salaried members are chosen for a term of twelve years; the nine unsalaried members are chosen for a term of six years—all of them by the city council. The board is collegiate in character, and can act only by a majority vote, though in cases of urgency the mayor may act for it, being required, however, to report his action immediately to the board for its consideration and action. One-third of the members constitute a quorum for the transaction of business. The fact that certain members of the board are expected to give all their time to the work of the board and that others are expected to give only a portion of their time is reflected in the fact that some of the members are salaried and some are not. Any citizen of the town may be chosen to the position of unsalaried member, though he cannot be a member of the city council at the same time. It is an honorary office, and persons chosen must perform the duties of the same unless excused for some good reason by the city council, under the penalty of a very considerable increase in their tax-rate. One-third of the unsalaried members retire from the board every two years. The retiring members are re-eligible indefinitely. The most important departments of public administration are divided among the salaried members, who are expected to devote all their time to the work of their offices. These members are chosen generally without any specific assignment of functions, and might be described as members without a portfolio. It is the duty of the mayor to divide up the public business among the members of the administrative board in what seems to him the most efficient and satisfactory manner.

Two salaried members of the administrative board have been chosen, however, in Halle with special reference to particular departments. One of these, called the school inspector, is the official adviser of the administrative board upon school matters. Another, called the city architect or engineer, is the official

adviser of the board upon all matters relating to building, to the public works, etc. The former is a trained school man, and the latter a trained engineer — a graduate of a school of technology. There are no restrictions upon the city council in its choice of members of the administrative board, except that at least one of these members shall have the qualifications required of men who desire to pursue the judicial or higher administrative career.[1] Such member, if the only one possessing these qualifications, would become naturally the legal adviser of the board or the city attorney. As a matter of fact, however, the tendency is very steadily toward requiring as a qualification for election to salaried membership in the board the completion of the full course of legal study and practice required for the admission to the bar or to the judicial career. Thus, not counting the school inspector and the city engineer, all the salaried members of the board in Halle, with one exception, possessed such qualifications before they were elected to their present positions.

As a rule, men are chosen to the position of salaried members of the board who have had experience in the service of other cities. This class of positions has become, therefore, in a certain sense a career. A city desiring a mayor looks about among the successful mayors of other cities and seeks to get the best man it can find for the salary it can pay, and so for the other salaried positions on the board.[2] The present salaried members of the board in Halle have all been called from similar positions in other cities. The choice of all members of the administrative

[1] *Cf. Die Städteverordnung für die sechs östlichen Provinzen der preussischen Monarchie vom 30. Mai 1853.* Mit Ergänzungen und Erläuterungen von O. OERTEL, Oberbürgermeister in Liegnitz. Zweite Auflage. Liegnitz: Verlag von A. Krumbhaar, 1893. Referred to subsequently as OERTEL.

[2] The following advertisement, which is typical, appeared in a Cologne paper recently: "As the undersigned will be retired under the pension law on the 4th of October, 1900, the position of mayor of the city of Gladbach will thereby become vacant. Candidates who have passed the state examinations for the higher judicial or administrative career, and who have had experience in the administration of a large city, are requested to send in their applications by the 10th of March. The salary is 10,000 marks, with right to a pension, and 1,500 marks additional for expenses.

(Signed.) "HEAD MAYOR OF GLADBACH."

board must be approved by the higher administrative authorities. The approval of the king must be obtained for the choice of mayor and assistant mayor, or head mayor and mayor, as the two officials are called in the city of Halle. The choice of the other members must be approved by the president of the government district in which the city is situated.

The administrative board, although defined primarily to be an executive and administrative authority, has not only the supervision, control, and conduct of the entire city administration, but shares also in the local legislative authority, since all resolutions of the city council, with comparatively few exceptions, relating to its own constitution, the passing upon the election of its own members, etc., must receive the approval of the administrative board before they can have the effect of local ordinances. The administrative board is authorized to make recommendations to the city council upon all subjects relating to city legislation and administration. It prepares and submits the business to be transacted to the city council, and while it does not always submit it in the form of a definite resolution, still, as this is the most convenient and speedy method of transacting the business, it is a form quite commonly adopted. Its relation toward the city council resembles in some respects the relation of an English cabinet toward the House of Commons, or, perhaps better, the relation of the executive board in Switzerland to the legislative branch.

As will be seen later, while the city council has also the right to initiate legislation, as a matter of fact nearly all legislation is initiated in the administrative board, and, even when the city council desires to pass an ordinance upon any given subject, the form of action usually consists in a request to the administrative board to submit an ordinance to the city council, relating to the subject in hand and embodying the ideas of the council. The double character of the administrative board, as a body which prepares legislation for submission to the city council and as a co-ordinate branch of the legislative authority itself, is revealed in the ordinary process of passing an ordinance. The administrative board, having decided that an ordinance is necessary,

drafts the same and submits it to the city council, with a recommendation that it be passed. Even when accepted by the city council without change, it must still receive the formal consent of the administrative board before it can go into effect.

The peculiar relation of the city to the higher administrative authorities is shown by the possibility of appeal by either the administrative board or the city council to the higher authorities, in case these two bodies cannot agree as to the desirability of proposed legislation. If, for instance, the city council regards an ordinance of a certain kind as very necessary, passes the same, and sends it to the administrative board, which, however, refuses its consent, the ordinary result would be that such ordinance could not be enacted, and the condition would remain in *statu quo* until the two bodies could agree upon an ordinance. But in Prussia the city council may appeal in such a case to the government district authorities. If, in the opinion of the latter, it is not a pressing matter, and may therefore be left to ultimate settlement by the ordinary method of agreement between the two bodies, resulting in inaction until such agreement can be reached, it is the duty of these authorities to refuse to interfere; but if, on the contrary, it should take the same view as the city council, viz., that this is a subject calling for action, and calling for action of the kind indicated by the city council, it may approve the resolution of the council, thereby making it an ordinance, binding the administrative board. The administrative board may in the same way prepare a resolution, and if it is not accepted by the city council, the board may appeal to the district authorities in the same way as the council may appeal, the process being exactly similar in both cases. In a word, it will be seen that for certain pressing matters, or at least for matters which one or the other of the local legislative bodies regards as very pressing, it is possible to substitute for the consent of either the consent of the higher administrative authorities of the district.

It is fair to say, however, that statistics show that little or no use is ever made of this privilege. In the city of Halle during

eighteen years only one such instance has occurred. In that case the question turned upon the method of raising a certain sum of money required for city purposes, either by a tax upon house-owners or a tax upon house-occupiers. The city council, made up for the most part of house-owners, insisted upon raising the money by a tax on house-occupiers. The administrative board considered that under the circumstances this was an unfair burdening of house-occupiers and an unfair lightening of the burdens of house-owners. The district authorities agreed with the administrative board, and the city council was compelled to accept the proposition of the administrative board as to the method of raising these taxes.

It might seem on the face of it as if the fact that the administrative board is chosen by the city council would make the former a mere agent or instrument of the latter. But, in the first place, the long term of office of the salaried members and the high character of the unsalaried members give them a far greater degree of independence than one might believe possible on *a priori* grounds. In the second place, there is a very important pressure brought to bear upon the city council to re-elect the salaried members of the administrative board, upon the expiration of their terms of office, even if they do not altogether like them, by the fact that the city is required to pay a pension to the salaried members of the administrative board who are not rechosen at the expiration of their term of office. This pension is equal to one-half of the total salary at the end of the first twelve-year period, and seven-tenths of the salary at the end of the second twelve-year period.[1] This practically makes the position of salaried members of the administrative board a position during good behavior, unless the person is retired on account of physical or other inability to perform the duties of the office, in which case he is also entitled to a pension, varying according to the years actually served, reaching a maximum of three-fourths of the salary at date of retirement.

[1] *Cf.* OERTEL, p. 386; also *Ortsstatute, Ordnungen und Regulative der Stadtgemeinde Halle a/S.* Amtliche Ausgabe. Halle a/S.: Verlag von Otto Hendel, 1899; p. 133. Referred to subsequently as *Ortsstatute, etc.*

A further guarantee of the independence of the administrative board is to be found in the fact that the law assigns certain matters exclusively to its jurisdiction. The entire conduct and control of the local administration, the appointment of members of the city civil service, control over those branches of the public administration which do not require the expenditure of money, etc., are vested in the administrative board to the exclusion of any interference on the part of the city council. All these things combined give to the administrative board at least the full dignity and authority of a second legislative chamber, and, on the whole, considering its extensive administrative functions, constitute it not only the most striking feature in the municipal government of Prussia, but also the most powerful. The higher authorities may insist, moreover, on a suitable treatment of the administrative board by the city council as to salary, expenses, etc., and the board is thus protected in its sphere of action against too great encroachments on the part of the city council.

The collegiate character of this board is an important and interesting feature of the public administration. The common notion that Prussia is governed by a bureaucracy is nowhere more strikingly refuted than in city administration, and one may say in local administration in general. In no large country in the world is greater care taken to provide that a decision, so far as it involves the question of expediency in any important public matter, shall not be made by one man, than in the kingdom of Prussia. In every department of the government, where it is possible, the system of boards with collegiate authority has been introduced, and where it is felt that such a system might lead to divided responsibility and the principle of one-man authority is therefore accepted, still such officer is required by law to consult certain boards, to get their official advice and opinion before acting. The whole spirit of the Stein and Hardenberg reforms involved, in one direction at least, the active participation of the lay element, as distinct from the professional element, in the administration of public affairs, and this principle has found the most extensive application in every department of

local government in Prussia. Nothing can be done in the sphere of civil administration except by boards which contain to a large extent a lay element; that is, a non-professional element; and in every instance the director or presiding officer has little more to say than any other member of the board, his chief advantage consisting in the right of an appeal to the higher authorities in certain cases considered by him to be of very great importance. Thus, in the administrative board of the city of Halle, while there are eight salaried members, who may be considered professional in character, who may be looked upon as in a certain sense inspired by the official and bureaucratic spirit which creeps so easily into every system of public service, yet the fact that no action can be taken by any one of these without the consent of the board, or, in any important matter, without the fullest discussion and criticism (of the proposed policy) in the board, prevents that deadening influence which grows out of official routine and official arbitrariness and despotism. When we consider further that in this board, which has the sole power of deciding all important matters, a majority, nine out of seventeen, are lay members, it will be seen that provision is made for the fullest and most complete discussion and representation of the controlling and leading views in the community; for these nine lay or unprofessional members are chosen from among the leading citizens, from among men of high station in the various departments of social, professional, and industrial life. In general, this participation of great numbers of the citizens in the active work of municipal administration is one of the striking features of the system of local government in Prussia, and it will be difficult to find in the history of any other nation such a remarkable development of public spirit and public interest in municipal affairs within so short a time as has taken place in Prussia under the impulse of this system, and the spirit in which it has been administered since the beginning of the century. This feature explains the wonderful development of efficiency, of initiative enterprise, of thrift and economy, which is characteristic of the system of local government in the Prussia of today.

While the mayor is, primarily, simply the president of the administrative board, he has a certain authority which distinguishes him from the other members of the same. It is his function, as noted above, to distribute the business to be transacted among the members of the board, and to supervise and control their administration. He has a certain power to inflict fines upon any member of the city civil service, and to order the same into arrest for a certain brief period, in case of neglect or violation of his duties. In case he regards any action taken by the administrative board as exceeding its authority or violating the general laws of the state, he may veto the same, and if the administrative board chooses to appeal to the supervising authorities against the veto of the mayor, it has the privilege of doing so. In other words, in case of a permanent disagreement between the mayor and the rest of the board as to the legitimacy of a certain action on the part of the board, the consent of the higher authorities may be substituted for the consent of the mayor. This privilege of vetoing the action of the board is very seldom exercised. It has not been exercised in the city of Halle for the last eighteen years.

The independence of the administrative board over against the city council, which was discussed above, is also further favored by the fact that the general laws of the state and the ordinances of the superior local authorities, provincial and district, may and do assign certain functions relating to the execution of the general laws of the state and province to the administrative board alone, or else to the mayor. In general, the mayor and the administrative board are the local organs which are intrusted with the local execution of general state and provincial legislation. In their capacity as representatives of the higher legislative and administrative authority, they are not subject to any control on the part of the city council. This circumstance tends still further to increase the independence and the power of the administrative board, even in the management of purely local affairs.

A large part of the function of an American city council consists in the issuing of local police ordinances; but in Halle the

whole administration of the police and the power of issuing police ordinances are vested in the mayor as the representative of the state government. This practically means that a very important part of the local ordinance power is vested in the mayor, though in most cases the consent of the administrative board is necessary to the making and publishing of these ordinances.

The meaning of the term "police" in the German state is very broad, though perhaps not so extensive as the term "police power" as used in English and American law. The function of the police is declared in the general code of the kingdom to be "the establishment of the necessary measures for the preservation of public quiet, safety, and order, and for the protection of the public or of individual members of the same from dangers which may threaten them." This, it will be seen, is a very extensive function — more exactly defined, it is true, in the law, by the enumeration of the particular matters which fall under that head. Some notion of the extent of this authority may be obtained from a brief summary of the subjects included within it, contained in the general law relating to the exercise of the police power in Prussian cities. It is declared that to the jurisdiction of the police authority belong the following subjects:

(*a*) The protection of person and property.

(*b*) Order, security, and ease of intercourse upon public streets, roads, squares, bridges, banks of rivers and waters.

(*c*) The system of markets and public sale of provisions.

(*d*) Order and regularity in the public assembling of large numbers of persons.

(*e*) The public interest in lodging-houses and hotels, wine, beer, and coffee saloons, and other establishments for the sale of food and drink.

(*f*) Protection of life and health.

(*g*) Protection against the danger of fire in the erection of buildings, as well as against injurious or dangerous actions, undertakings, or events in general.

(*h*) The protection of fields, meadows, pastures, nurseries, vineyards, etc.

(*i*) Everything else which may be ordered by the police in the special interest of communities and their members.

In issuing police regulations or ordinances concerning the above-mentioned subjects, with the exception of those relating to public security, the mayor is bound to obtain the consent of the administrative board. In matters relating to agricultural police the mayor must also obtain the consent of the city council.

The law, however, confers upon the city authorities as such the right to issue police ordinances in regard to certain definite matters, and in such cases the consent of the city council is, of course, required to the issuance of such ordinances. To illustrate the way in which this works, we may take as an example the relation of the city to the public slaughter-house and stock-yards. Under the general municipal code of Prussia, which is based on the principle that cities may do (not what is expressly permitted, as in the case of American communities, but) what is not prohibited by the law, a city would be authorized to establish a public slaughter-house, if it chose to do so, provided it could obtain the consent of the superior administrative authorities, which, generally speaking, would not be refused. But, having established the public slaughter-house, the city could, under the general municipal law, have no authority to require that all slaughtering in the city should be done in the public slaughter-house. This ordinance could only be passed by the police authority, which, in this case, would be the mayor and the administrative board. But a general law, passed by the state in 1869, provides that cities which choose to erect public slaughter-houses may by local ordinance require that all slaughtering be done in these houses. Thus, a portion of this police authority is vested in the city authorities in general and requires for its exercise the consent of the city council.

In the same way, under its general authority to make ordinances concerning matters affecting its interest, so far as the particular power in question is not prohibited to it or vested in some other body, the city may construct a water plant or a system

of sewers. It may determine the conditions on which private individuals may make connections with the water-works or sewers. But it has no authority to require that such connections shall be made, even though, in its own opinion, the public health may require it. This power is vested solely in the police department, and must be exercised in the form of police ordinances issued in the manner prescribed by the law for such regulations. Thus, in Halle, the municipal building code is issued by the police authority, and it contains provisions requiring that every house erected on a street supplied with water and sewer pipes shall be connected with the same; while the collection of local city ordinances contains the legal provisions regulating the method of making such connections and the fees to be paid for the same.[1]

The vesting of the police authority in this large sense in the mayor and the administrative board practically makes the latter a more powerful body, for some purposes, even in the sphere of what we should be likely to call in the United States local ordinance, than the city council itself. During the year 1899–1900 the administrative board held eighty-seven sessions and ninety-four during the preceding year, showing the taxing nature of its duties.

The administration of the general state government is represented in the city by the so-called "city committee," consisting of the mayor and four other members of the administrative board, chosen by the latter. Two of these are chosen from among the salaried members, and the other two from among the unsalaried members. The functions of the city committee are, in general, to see that the laws and orders of the higher authorities are enforced within the limits of the city, so far as this duty is not intrusted by law to other officials of the state or province. As a matter of fact, many important matters are intrusted to its jurisdiction — thus: the issuing of licenses for

[1] *Cf. Polizeivorschriften, Ortsstatute und Regulative der Stadt Halle a/S.* Zusammengestellt und erläutert von v. Holly, Stadt- und Polizeirath. Zweite Auflage. Halle a/S.: Verlag von Otto Hendel, 1894; pp. 110 and 481.

the sale of intoxicating drinks; the permits for the establishment of or change in industrial plants, and for carrying on the pawn-shop business; the organization and conduct of public amusements; construction of steam boilers, and various other matters pertaining to the departments of administration which are looked upon as of a more or less general character.

That the duties of this committee are no sinecure may be seen from a brief statement of its activity during the year 1899–1900. During this year it held 18 formal sessions and 48 court sessions for the determination of disputes. Of 30 disputes coming before it, it settled by judgment 27, and secured the settlement of 3 others in other ways; 7 cases were appealed, in 3 of which judgment was confirmed and 2 altered, and 2 were still under consideration by the higher authorities. Of 619 matters coming before it for decision 585 were decided by vote, and 26 settled in other ways. Permits were issued: 21 for restaurants, 43 for general saloons, 209 for saloons excluding brandy, 23 for retail trade in brandy alone, 13 for trade in poisons, 2 for public amusements, 55 for the construction of steam boilers — 27 stationary and 28 movable — 7 more for industrial plants. These permits were taxed to the extent of 1,387.50 marks by means of stamps. Sixty-five cases of dispute relating to the support of the poor, that is, determining whether the city was responsible for the support of the poor in certain disputed cases, were disposed of. The city committee has also jurisdiction in certain matters connected with the administration of the agricultural accident insurance. Eighteen cases of accidents were brought to its attention and settled through its agency. At the end of the year 1899 there were in the city 87 restaurants, 167 saloons with permission to sell brandy, 351 saloons without permission to sell brandy, and 195 saloons for sale of brandy alone.

It will be seen that to this city committee are intrusted many matters which in American cities would be likely to be vested in special excise boards or police commissioners under the general supervision and control of the city council.

It is plain that in the case of this committee, as in the matters intrusted to the exclusive control of the administrative board as a whole, the possession of such important functions enhances the dignity and increases the authority of the administrative board over against the city council.

The city council of Halle consists of fifty-four members, chosen in accordance with the well-known Prussian three-class system.

The normal number of members in the city council is indicated in the general municipal code, and varies according to the population of the cities; but the provision in the municipal code is directory and not mandatory. The number in the city council is therefore practically determined by local ordinance, though the normal number indicated in the municipal code represents the center around which the actual number in the various cities may be said to fluctuate. Thus, the number in the city council of Halle, which was fixed at twenty-seven under the revised municipal code of 1831, remained at that figure until 1866, when the number was increased by local ordinance to forty-five, where it remained until 1890, when the number was fixed at fifty-four by local ordinance.[1]

All the qualified voters of the city are arranged in a list in the order of the amount of direct taxes which they pay to the city, district, province, and state. The sum of these taxes is

[1] On April 1, 1900, the city council of Halle was enlarged by the addition of twelve members, making sixty-six in all; thus providing for the representation of the suburbs of the city which were annexed on that date. The agreement between the city and the annexed districts provides that until the year 1905 the newly inaugurated villages shall constitute a separate and independent electoral district for the election of these twelve additional members, and that the members must be residents of the district in which they shall be chosen. The number of members chosen from these new districts shall not be reduced below twelve. And in case the total number of members of the city council be increased, then the number elected from the new district shall be increased likewise, so as to preserve the present numerical ratio between the total number of the city council and the number elected from the new portions. This was a temporary concession to the fear of the annexed suburbs that their special interests could only thus be guaranteed against the neglect or unfriendly action of the general city council. It is a departure from the provisions of the general municipal code in regard to the constitution of city councils.

then taken, beginning at the highest and continuing until a sum equal to one-third of the total taxes paid by all the qualified voters is obtained. The persons who together pay this first third of all the direct taxes constitute the first voting class. The addition is then continued until the second third of the sum-total is obtained. The persons who together pay this second third constitute the second voting class. All the other qualified voters, who together pay the last third of all the direct taxes, constitute the third class. Each of these classes is entitled to choose one-third of the members in the city council —or, in the case of Halle, eighteen. As the term of office of the members of the city council is six years, and as one-third retire every two years, each class is entitled to choose six members every two years. The law provides that in case there are more than five hundred voters in any class the city may be divided into electoral districts for the choice of members. In the case of Halle the city is not divided into electoral districts for the choice of members in either the first or second class, but is divided into five districts for the choice of members in the third class—one member being chosen in each of four districts and two in the fifth.[1] A majority of the members representing each class must be made up of householders.

It is easy for anyone at all familiar with the distribution of wealth and taxes in modern cities to see that a city council made up upon this method will be composed primarily of representatives of the propertied classes, and one may say in general of the classes possessing large property. For it is certain that the number of members in the first class will be very small, and even in the second class the number will be small compared with that of the third class.

As a matter of fact, in the city of Halle, in the year 1899, the list of qualified voters contained 17,699 names of people

[1] As the actual districting was done many years ago, the population of the various districts has become very unequal. Three of the districts are much more populous than the other two, and, in order to bring about a certain rough equality, these three are allowed to choose the sixth member in turn.

who together contributed the sum of 2,743,639.20 marks in direct taxes. One-third of this sum, or 914,546 marks, was contributed by 140 persons. The person highest taxed paid the sum of 56,051.20 marks. The person who paid the minimum sum entitling him to admission into the first class paid 2,267.98 marks. The second third of the total amount of direct taxes was contributed by 914 persons, who, therefore, constituted the second class of voters, the highest taxed person in this class paying 2,266.89 marks, and the lowest taxed, 486 marks. All the rest of the voters, being 16,645 in number, contributed the last third of the direct taxes, and constituted, therefore, the third class. The highest taxed person in the third class paid 486 marks.

The first two classes, containing together only a little over one thousand persons, and including no one who did not pay at least $120 in direct taxes, elected together thirty-six members of the city council, while the third class, containing sixteen times as many persons, elected only one-third of the members of the city council. It is plain that the first class and a majority of the second class could elect two-thirds of the members in the city council, and it is also plain that this list would include a comparatively small number, not to exceed three hundred persons, all paying probably upward of $250 a year in direct taxes. It is evident that this system of government has been properly denominated a government by the taxpayers, and, one may add, by the large taxpayers. Owing to the fact that a citizen must have paid a tax, to which he has been regularly assessed, before voting, or must show an income of at least 660 marks ($157.08), or must be a house-owner, etc., the total number of qualified voters falls considerably below the total number of male citizens twenty-four years of age (the age required before a person can vote) in the community. Thus, a large number of male citizens of the required age is practically excluded — varying (according to different estimates) from 15 to 30 per cent. This system leads to a relatively small participation of the qualified voters in the elections, being in the elections of 1897, 50, 59, and 54 per

cent., respectively, in the three classes from I to III.[1] In the elections of 1899, 43 per cent. of the voters in the first class appeared at the polls, 56 per cent. of the second class, and 54 per cent. of the third class. It must be remembered in comparing these figures with American reports that the German registry contains the names of all those entitled to vote, and not merely those who have specially registered for the single purpose of voting — a number always much smaller than the total number of otherwise qualified voters.

The city council is authorized to select its own president, vice-president, secretary, and clerk, though the other employees are appointed by the administrative board. The city council is independent in its consideration of the matters assigned to it, and its jurisdiction is described in a general way to include all

[1] To be a qualified voter in Halle, a person must be a male citizen of the Prussian state, independent (*i. e*, under no tutelage or guardianship, judicial or otherwise), and twenty-four years of age. He must, moreover, for a year previous to the election

1. Have been a resident of the city;
2. Have received no public poor relief;
3. Have paid the local taxes assessed upon him;
4. And either

(*a*) Own a dwelling house in the city; or

(*b*) Carry on an independent business with the aid of at least two assistants; or

(*c*) Have been assessed either to the state income tax or at the fictitious normal rate of at least four marks ($0.952), or at an income of 660 to 900 marks.

The last provision (*c*) is rather complicated. It means in effect that every person whose yearly income has been ascertained to be 660 marks ($157.08) or over, according to the test prescribed in the income-tax law for ascertaining income, shall be allowed to vote. In this process certain deductions are made from the actual income in order to determine the assessed income, as, for instance, life-insurance fees, etc.; a certain sum for each child dependent on the person taxed, allowances for sums paid for the support of parents or other relatives, etc.; so that the "assessed income" of 660 marks may correspond to an actual income of anywhere from 660 to 1,000 marks or even more, according to the circumstances. The state does not levy any tax upon assessed incomes of less than 900 marks; cities are permitted to levy taxes upon assessed incomes of 460 marks or more. Halle levies an income tax upon assessed incomes of 660 marks or more — the sum usually varying from 4 to 5 marks upon assessed incomes of 660 to 900 marks. As a matter of fact, in the year 1898 the minimum income tax to be paid by a voter was 4.80 marks ($1.14).

This provision excludes from voting a certain number of otherwise qualified persons — exactly how many there is no means of ascertaining from the records. The provision in regard to Prussian citizenship excludes probably many more.

matters which are not expressly assigned by law to the exclusive jurisdiction of the administrative board or other authorities. It is authorized to appoint its own committees, for the consideration of such business as is referred to it. It chooses, as said before, the members of the administrative board, including the mayor and vice-mayor. It fixes the remuneration of the salaried members. It has in general full control of all financial matters. It is, however, as one can see from the description of the functions of the administrative board given above, very largely a controlling and supervising, rather than a legislating, body. Like the English House of Commons, its consent is necessary to all legislation, but nearly all initiative in legislation comes from the administrative board itself, and even if the city council desire to initiate legislation, which right, by the way, is given to it to the fullest extent, it takes the form usually, as said before, of asking the administrative board to submit an ordinance relating to the subject in hand. It is usually represented by members of its own choice in all the deputations, commissions, and subboards mentioned below. It may investigate the working of any city department, and for this purpose it may require the assistance of the administrative board.

The relation of these two city bodies to each other is reflected in the sessions of the city council itself. These sessions are held in the hall of the city council at times to be determined by the city council itself, so far as the regular sessions are concerned, extraordinary sessions being held at the call of the presiding officer, either on his own initiative or at the request of other members. In this hall the president of the city council, the vice-president, and the secretary occupy seats at a raised desk at one end, while the members of the city council occupy seats upon the floor directly in front of this desk. To the right and left of the president's desk runs a row of seats equal in number to that of the administrative board. These desks are assigned to members of the administrative board, and, generally speaking, they are occupied by such members as have charge of administrative departments within whose jurisdiction

the business of any particular meeting may fall. The members of the administrative board have the right to be heard at their own request upon any and all propositions discussed in the city council which they may be called upon to execute. They are also required to answer questions which the members of the city council choose to address to them, so far as they relate to subjects over which the city council has control. This brings about, as noted before, a similar intimate relation between the administrative board and the city council as exists between the English cabinet and the House of Commons, or rather as exists between the executive council in Switzerland and the legislative branch in that country. The city council is very jealous of its prerogatives, of its right of discussion and criticism, and of its right to reject the propositions made by the administrative board, and this right is very frequently exercised. When a matter has become ripe for report to the city council, after having received the approval of all the appropriate commissions, it has already gone through so many instances that it is very likely to be accepted, unless there is some strong feeling on the subject on the part of individual members of the council. The procedure strikes one as a little cumbersome, and calculated sometimes rather to impede public business than to facilitate it. Thus, a proposition to expend $25 in the repair of the boilers in the city theater must first be worked out in the office of the city engineer, in detail, showing how the money is to be spent, the necessity of it, the possibility that it will save future expenditures within a certain length of time, etc. The matter must then be submitted to the theater commission, to the technical commission, to the finance commission; then passed upon by the administrative board, and finally by the city council. All propositions looking to the expenditure of money must go before the finance commission and, generally speaking, before at least one other commission. If the administrative board is in favor of a given project, it reports the matter to the chairman of the city council. Before submitting it to the council the chairman hands it over to a member or to a committee of the council with the request to

report it to the council at the next meeting with comments. The most important matters go, of course, to the chairmen of standing committees; the less important may be referred to a single member or to two members, with the request that each shall give his opinion to the council. Thus each matter is reported to the city council by a member of that body. He states what the administrative board has proposed and what the attitude of the various commissions has been before which it has been laid for consideration. If there is a difference of opinion between these commissions, as, for instance, between the finance commission and the building commission, or the finance commission and the school commission, there is, of course, a greater readiness on the part of the city council to reject the proposition of the administrative board than if it comes to the city council with the full approval of all the committees and commissions to which it has been submitted.

It will be seen from the above description that we have nothing in the United States exactly similar to either of these bodies, and nothing at all resembling the combination and co-operation of these two bodies in city administration. Whether such a scheme would work in the United States or not is extremely doubtful, but there is no doubt at all that such a scheme could not be adopted with our views upon the subject of municipal government and its relation to the state and society. Probably one of the fundamental conditions of efficiency and of initiative enterprise in this form of municipal government is the professional permanent element, which is the very thing which we in the United States have thus far rejected *in toto* as a proper element in municipal administration. It would probably, furthermore, be difficult for such a scheme to work at all unless it were based upon some restriction of the suffrage—a proposition which stands little chance of being adopted in any American community. It seems, moreover, that a permanent civil service is an additional necessary element to the successful working of such a scheme, and a permanent nonpartisan civil service is something to which we Americans have not as yet made up our

minds, although we have been struggling toward it for a generation.

During the year 1899–1900 the city council held forty regular sessions and three special sessions, and this represents about the average number per year.

A satisfactory view of the constitution and working of municipal government in Halle cannot, however, be obtained without considering further the functions of the various commissions, deputations, etc., referred to above.

The general municipal code of 1853, under which the government of the city of Halle is organized and administered, provides that special deputations, commissions, or boards may be constituted for the permanent administration or supervision of special departments of the public business, as well as for the performance of special or temporary functions.[1] These deputations may consist either solely of members of the administrative board, or of members of the administrative board and the city council, or of members of both these bodies with the addition of qualified voters from among the body of citizens. In order to constitute joint commissions of both bodies, the consent of each body is necessary.

These commissions are placed under the immediate control and supervision of the administrative board. They report to it and not to the city council. The city council may choose its own representatives, and any additional citizens who are to be selected as members of the deputations, while the mayor is to name the members of the administrative board, and also to choose one of the latter as chairman of the deputation.

Permission is also given to the city to adopt other and additional regulations or special regulations, growing out of the special needs of the community, in regard to these permanent or temporary deputations.

The city of Halle has made extensive use of this privilege of creating special commissions or boards for the supervision or conduct of the various branches of city administration.

[1] *Cf.* OERTEL, p. 322.

Something like forty of such joint commissions, under the various names of deputation, commission, board of trustees, directory, etc., have been created by the city authorities. To some of them a far-reaching jurisdiction of independent action has been assigned; to others, rather a directory and supervising authority, with the duty of reporting to the administrative board. It will not be possible within the compass of such a work as this to enter into a detailed enumeration and discussion of all these different commissions and boards, but it will be worth our while to examine a little more closely the constitution and jurisdiction of two or three of the more important ones; and for the purpose of illustrating the working of the city government I shall select three as having charge of especially important branches of public administration and having a somewhat extensive sphere of independent jurisdiction within the limits of the law.

The city has under its charge the elementary and secondary schools. Of the seconday schools the most important are the gymnasium, the higher real school, and the girls' high school. The gymnasium and the higher real school are placed under the charge of a board of trustees, consisting of nine members — two members of the administrative board, appointed by the mayor, one of whom, of course, is the city school inspector; three members of the city council, the directors of the two schools *ex-officio*, a professor in the university, and a former member of the administrative board now out of service. To this board of trustees are deputed the general supervision of the work of these schools, recommendations as to equipment, the making out of the annual budget, recommendations as to additional teachers, and recommendations of persons to be appointed as teachers, the actual appointing power, however, being vested in the administrative board of the city.

It will be seen that this board of trustees unites in itself a very happy combination of the expert and lay element in education. Generally speaking, in Prussia the head of any public institution is also a member of the governing board of that institution, with full voting rights as a member in regard to

everything concerning the school which does not affect his own personal relations. Such a subordination of the head of the school under the board of trustees in a sort of clerical position as is the rule in American cities would not be suffered for an instant in Prussia. Aside from the directors of the schools, as experts, the presence of a university professor insures the interest of the university in these schools, which are primarily the preparatory schools for all the higher institutions. The presence of the school inspector secures continuity and harmony in the administration of this school and a proper fitting of its conduct into the general conduct of the school system of the city. The girls' high school is placed under the charge of a similar board of trustees, with similar authority, consisting of seven members —the city school inspector, a second member of the administrative board, two city councilmen, the director of the school *ex-officio*, and a professor in the university. A position now vacant and shortly to be filled was formerly occupied by the senior clergyman of the established church in the city.

The elementary schools of the city are placed under the charge of a special school commission or a school board, consisting of seventeen members—three members of the administrative board, including the mayor as chairman of the commission, and the city school inspector, three members of the city council, including the chairman of that body, a leading clergyman of the city, the director of the girls' high school, and the principals of the ward schools in the city (six in number) *ex-officio*. The seventeenth member is a former member of the administrative board now retired. The ordinance establishing the school commission declares that its function, in general, is to care for the observance of external order in the school system and for the careful compliance with the laws and ordinances hitherto established relating to it; also to examine everything by which the welfare of the schools may be injured or promoted, and to report upon the same to the administrative board. With the exception of the members of the administrative board, who are appointed at the pleasure of the mayor, and of the *ex-officio* members of the

board, the others are chosen by the city council for terms of six years, in such a way that half are to retire every three years.

To this school commission is assigned the supervision of school attendance. Its duty is to see that the enrollment of pupils takes place at regular periods of the year, in accordance with the general school laws of the state, that provisions relating to school attendance are observed, that daily absences are noted and reported by the teacher. In other words, it is to see that the provisions of the compulsory school law in regard to school attendance are fully complied with. It has also charge of school property and school buildings. It is to prepare the school budget and to make propositions in reference to the increase of salaries, in reference to the appointment of additional teachers and nominations to fill vacancies or new positions created by the administrative board. It supervises the general conduct of the schools by the teachers, takes note of any complaints in regard to the way in which they perform their duties, assists them in the maintenance of discipline inside and outside of the schools, and determines the time of beginning and closing the school vacations, within the limits of the general laws and ordinances.

It will be noted that this school commission has to do only with the elementary schools of the city, that is, the so-called common schools, or *Volksschulen*, and the middle schools. The term "lower schools" signifies, in a legal sense, a school, graduation from which does not justify admission to the privilege of one-year voluntary military service. It would, therefore, strictly speaking, include also the girls' high school, but a special exception has been made in the case of the city of Halle in such a way that the girls' high school is classed as a higher school, owing to the unusually high character of its instructing body and the general equipment and conduct of the school as a whole.

The school commission, moreover, has control only of the evangelical schools of the city. This is practically all the lower schools of the city, with the exception of one — the Catholic school, which is under the charge of a special commission, consisting of the school inspector, one member of the city council,

the priest of the Catholic church, the principal of the school, and two citizens. The elementary schools in the city of Halle are organized on the so-called confessional system, and are divided into the evangelical and Catholic schools. Religious instruction is given in all schools by the regular teachers, and Catholic parents who do not wish their children to attend the regular religious instruction of the evangelical schools must send them to the Catholic school in the town. This constitutes, of course, a certain hardship, since, instead of the twenty or twenty-five evangelical elementary schools distributed throughout the city, there is only one Catholic school.

In general, this school commission is an advisory, consulting, and administrative body rather than one of independent powers of action. The city, however, is now considering the organization of a school deputation which will not be merely an advisory or consulting body, but will constitute, under the direction and supervision of the administrative board, the real school authority of the city. It will appoint teachers, fix their salaries, within the limits of the budget set by the city authorities, and in general have complete control within the limits of the law of school matters within the city.

It will be observed that the city school inspector is one of the members of the administrative board, with full rights of deliberation and voting upon all matters falling within the jurisdiction of that body. He is, to a certain extent, the official adviser and expert in school matters to the administrative board. He occupies, therefore, in one sense, a position somewhat similar to that of a city superintendent of schools in an American city. But, on the other hand, as he is a member of each of the special school boards and practically presiding officer of the same, as well as a full-fledged member of the administrative board itself, he occupies in many respects a more important and a more influential position than his counterpart in an American city. He is, moreover, a more permanent official, since his term of office is in the first instance twelve years, and the city cannot dismiss him without conferring a pension upon him, as noted

above, to the extent of one-half of his salary after twelve years' service and of seven-tenths of his entire salary after twenty-four years' service. The new school deputation, which may be created within the next two or three years, will assume entire charge, not only of the lower schools but of the higher schools as well, replacing at once the two commissions of the elementary schools and the various boards of trustees of the higher schools.

The schools of a city are regarded in Prussia, not merely as local institutions, but also as state institutions, and as such are further subject to the supervision of the state school department. For the lower schools the government appoints a local school inspector, who must report regularly to the higher school authorities as to the manner in which the school affairs of the city are conducted. This school inspector has usually been the senior clergyman of the established church in the city, but since his death a short time ago the functions of state school inspector have been conferred upon the city school inspector. The office of city school inspector as a member of the administrative board is not to be found in all Prussian cities. Halle was one of the first to establish the office, and the present incumbent, Dr. Krähe, who has held the office sixteen or seventeen years, was the first school inspector chosen in this city.[1]

The nomination of teachers, as said above, for positions in the elementary schools is made by the school commission. The method pursued is somewhat as follows: In the first place, no one can be appointed under the general school law who has not graduated at a state normal school or passed the examinations which would be accepted as the equivalent of such graduation. In the second place, according to a local rule, adopted by the commission itself, no one will be nominated to such a position who has not passed the second examination required of normal-school graduates; so that no one can be considered as a candidate for permanent appointment in these elementary schools who has not had four or five years of practical experience in addition to the two examinations required of persons who receive

[1] Since the above account was written Dr. Krähe has died.

permanent appointment in Prussian public schools. It was formerly the custom in case of vacancies in the city schools to publish the fact in the newspapers and to give notice that people might apply who desired an appointment. The city has ceased doing this because of the fact that more applications are now regularly made from properly qualified teachers than can be considered. In case a person applies for a position in the city schools, he must present certificates showing graduation from the normal school, the standing attained in the final examination at such school, also certificates covering the same ground as to the second examination, certificates as to the condition of health, certificates from the local school inspector, from the city school inspector (if there is one), and from the higher school authority of the district in regard to his experience and success as a teacher. If these certificates are, any of them, unsatisfactory, the person's name is dropped, without further ceremony, from the list of candidates to be considered. If, however, they are unexceptionable, notice is then sent to the individual that his name has been entered upon the list of candidates, and that in case of a vacancy further notice will be sent to him. When a vacancy arises, those persons, whose names are on the list, who seem to be most likely to serve the purpose, are invited to visit the city, present themselves in person, and give a model exercise in one of the schools, before the city inspector and one or two members of the school commission. In case the school commission is satisfied with these tests, it recommends to the administrative board that such person be appointed. If the board approves the recommendation of the school commission, the name, together with a copy of all the proceedings in the matter, is sent to the higher school authority for approval. The city school inspector states that during his term of office the administrative board has never failed to approve the recommendation of the school commission as to the appointment of teachers, nor have the higher school authorities ever failed to approve the recommendation of the administrative board. It will be seen that this system aims at securing the very best available ability, whether

in the city or outside of the city, for the schools. There is no question here of favoring people because they are residents of the city of Halle, but the field is open without fear or favor to all properly qualified citizens of the Prussian state. As a matter of fact, a very large proportion of teachers in the elementary schools have been chosen from the ranks of teachers engaged in other cities. As the city school inspector states, it is an advantage of a large city like Halle that it can have its pick of the best teachers to be found in the schools of the smaller towns throughout the kingdom.

It goes without the saying in Prussia that no teacher would be appointed to a position in the evangelical schools who did not belong to the evangelical faith, nor to a position in the Catholic schools who was not a Catholic. Furthermore, no person of Jewish faith could be appointed to a position in the city elementary schools, since there are no special schools for the Jews, and Jews would not be appointed either to the evangelical or Catholic schools. This feature is connected with the requirement that religious instruction shall be offered in all the schools, and that each individual teacher must be qualified to give the religious instruction appropriate to his particular grade. It would not be satisfactory to the sentiments of the community for a Jew to give instruction in the Christian religion to the children of Christian parents, nor to a Catholic to have a Protestant give religious instruction to his children, or *vice versa*. All this is an outgrowth of the peculiar survivals to be found in European countries. The state requires that formal religious instruction shall be given to every child, and if a parent objects to his child's receiving the religious instruction offered in the school, as a Jewish parent might, for example, he must show to the satisfaction of the school authorities that the child is receiving religious instruction elsewhere, according to the standards of the Jewish faith, in as systematic and thoroughgoing a way as the children who attend religious instruction in the schools receive there.[1]

[1] This limitation refers to persons of Jewish faith; not to those of Jewish race who may have been converted and baptized as Christians. In Berlin, where the

Another important department of public administration which is intrusted to the care of a permanent deputation or commission is that of the care for the poor. The city of Halle forms a poor-law district, with the obligation of caring for the poor within its boundaries, in accordance with the provisions of the general laws of the state. For the purpose of carrying out this function, a poor-law board has been constituted, under the control and supervision of the administrative board, but with an extensive field of independent jurisdiction. The poor-law board, called the *Armendirection*, consists, according to the ordinance establishing it, of two members of the administrative board, of whom one must be chairman and the other vice-chairman, these appointed by the mayor; of two members of the city council, of the chairmen of the local poor districts, of one or more principals of ward schools, of a clergyman, of the chairman of the Women's Association for the Care of Orphans, and of a physician. As the city is divided into twenty-three local poor districts, and the chairman of each of these poor districts is a member of the general poor-law board, the board has a large membership — no less than thirty-four. As some of the chairmen of the local poor-law districts are also members of the city council, the actual constitution of the board at present shows altogether four members of the city council. It includes, moreover, two members of the administrative board, four principals of ward schools as members *ex-officio*, two clergymen, and the hospital physician. The term of office of all except the *ex-officio* members is six years, and must coincide either with membership in the city council or with chairmanship in the local poor boards. The general poor-law board has charge of all matters relating to the administration of the poor law which are not assigned expressly to the various district commissions in the city local districts. The following subjects are expressly assigned to its jurisdiction:

departmental system of instruction has been largely adopted, and where, therefore, the religious instruction is given by special teachers, this limitation does not exist, though recent events show that the state department of education intends to discriminate against the Jews in the future.

1. To determine the general principles according to which the poor law is to be administered, and to direct and supervise the conduct of the business of the district commissions, and to perform the same functions in case of the various institutions intrusted to its charge.

2. To grant relief, so far as the independent decision of this matter is not intrusted to the local commissions.

3. To grant relief in cases of the city poor who have their residence in other districts.

4. To prepare the budget, to audit the yearly accounts, and to make a yearly report.

5. To decide questions on appeal from decisions of the local commissions.

6. To care for the property of the poor-law board and for the various foundations intrusted to its charge.

7. To represent the poor district in its relation to other poor districts.

8. To collect the sums due to it from other poor districts for relief accorded to their poor.

9. To purchase clothing, fuel, and other necessary supplies for persons who are receiving either outdoor or indoor relief from the city.

10. To decide upon the admission of persons into the local hospitals, or into educational, sanitary, or other asylums outside of the city.

11. To maintain an intimate connection and intercourse with the directors of the various local charitable organizations.

12. To dispose of any other business connected with the support of the poor, which is intrusted to it by the administrative board.

The board is authorized, within the limits of its jurisdiction, to issue independent ordinances and public notices. It does not need either the approval of the administrative board or the consent of the city council in order to prosecute suits, or to make contracts, or to make compromises in regard to the support of the poor from other districts, or in regard to the support of its

own poor in other districts. The financial needs of the poor-law board are met from the following sources:

1. From the proceeds of city property which is set aside for this particular purpose, and the proceeds of any property left by private individuals for the same purpose.

2. By fines, penalties, and fees which are appropriated by law for this purpose.

3. By presents and donations; but if such gifts are connected with any burdens or obligations on the part of the city, the approval of the administrative board and the consent of the city council must first be obtained before they can be accepted.

4. By an appropriation made by the city for the support of the poor.

The board must make out an annual budget, indicating all the sources of its revenue and the purposes of its expenditure, which must also include the appropriation made by the city for the support of the poor. This budget must be approved by the administrative board and the city council, and the poor-law board is then bound to keep within it.

For the purpose of giving relief to the poor, the city is divided into twenty-three poor districts—a number which is fixed by the city authorities on the proposal of the poor-law board. These poor districts are administered by so-called poor-district commissioners. These consist of a chairman, a vice-chairman, and a number of visitors. The choice of members is made for the term of six years by the city council upon the nomination of the poor-law board. The number of the same is fixed according to the size of the district. The principle is to be observed that, as a rule, five and never more than ten families shall be under the care of one visitor. Membership in these commissions is a so-called honorary office. Every citizen is required to accept an election to this board and perform its duties in case he be chosen to it. It is the business of members of these local boards to make themselves thoroughly acquainted with the condition of the poor intrusted to their care, by a continuous, careful, and personal examination, and to try by

personal intercourse with them to improve their morality, their industry, and their economy, to help them with advice, and in every way to strive to bring them to such a point that poor relief will no longer be necessary. They must exert themselves to find out what people may be suffering in their district, especially those who may be kept from a feeling of shame from applying for relief. These local commissions have charge of the granting of every kind of assistance for the support of the poor, in cash and in kind, within the limits set for them in the budget, and according to the principles laid down by the general laws and ordinances of the state and city and by the regulations of the poor-law board. They may prescribe free medical attendance, free medicine, and other remedial means. They may grant the necessary expenses for burial, and they are intrusted with the carrying out of the orders of the poor-law board and of the administrative board. Individual members of these commissions may grant temporary relief in cases of extreme necessity, reporting the case to the meeting of the district commission, which is held regularly twice every month, and as much oftener as the chairman of the district may consider necessary. Relief is extended as a rule only from one session to another. All outdoor relief to persons entitled by the fact of having a settlement to public relief within the city of Halle is extended through these district commissions. The poor-law board itself has charge of the indoor relief accorded in the public hospitals, asylums, etc. The city has an arrangement with the university hospitals by which they care for most of the city poor who need medical attention. In this way the university clinics secure ample material, and the care for the sick poor costs the city relatively little. In fact, the city is thus relieved from the necessity of maintaining a great city hospital, though it supports one at present capable of caring for about one hundred and fifty patients.

It will be seen that in general the system of poor-law administration adopted in the city of Halle is that known as the Elberfeld system. It is distinguished by the attempt to secure some

personal relation between the applicants for poor relief and honorable and independent citizens acting as members and agents of the poor-law board. In the twenty-three poor districts during the year 1898–99, 272 persons acted as chairmen of these district commissions or as visitors of the poor. Of these, ten had served as members of these commissions for more than twenty-five years. Over two hundred had served for a term of four years or longer, and over one hundred for a term of eight years or longer, so that the average experience of members of these commissions was very considerable. Of the 272, 45 were professional men — physicians, professors, teachers, public officials, etc.; 75, manufacturers and merchants; 132, contractors, master-mechanics, and other tradesmen.

The member of the administrative board appointed by the mayor as chairman of the poor-law board is ordinarily the director of the entire system of the poor-law administration in the city. The combination of expert knowledge and professional skill and of lay co-operation, so characteristic of the system of local government in Prussia, is nowhere better illustrated than in this organization of the system of poor relief.

The city of Halle holds in trust a very considerable sum of money and other kinds of property for the benefit of the poor and needy within the city limits. It is a striking and interesting fact that citizens of Halle, desiring to leave money for purposes of this kind, are far more apt to intrust it to the administration of the city authorities than they are to create special boards of trustees, as is the rule in our own country. It is a testimony at once to the confidence of the average citizen in the efficiency and honesty of the public authorities, and to the skill and efficiency of these authorities themselves. Some of these foundations are of very considerable importance. Taken together they represent a property of some eight million marks, or two million dollars — a very considerable sum for a city of 125,000 inhabitants. If the city of Chicago had a proportional sum, it would exceed thirty millions of dollars. The effort is made to secure a hearty co-operation between the

system of public administration for the support of the poor and private relief. The difficulties are, however, here as elsewhere, very great, and while they are on the whole as satisfactorily solved in Halle, perhaps, as in cities of a similar size elsewhere, the condition is still not altogether satisfactory. One important concession has been made by the union of all the organizations for private poor relief, in that they have bound themselves not to extend aid to persons who have not obtained a settlement within the city. Formerly it was the custom of paupers who desired to obtain a settlement within the city to apply to private organizations during the first two years of their residence within the city, and then, having acquired such residence, which would not be possible if they had received public support during that period, they became from that time on a burden upon the public poor rates. The arrangement just noted enables the city to hold other poor districts responsible for the support of the poor whom they send away or who come to Halle of their own accord.

As an illustration of a third of these subordinate boards or commissions, working under the supervision of the administrative board, I shall take the gas and water commission, which has charge of the gas- and water-works owned and managed by the city. This commission consists of eight members—two members of the administrative board, five members of the city council, and the director of the gas- and water-works *ex-officio*. One of the members of the administrative board appointed to this commission must be the city engineer. The term of office of the members appointed by the city council is three years. The director of the gas- and water-works is an advisory member of the board, with the right to take part in all its deliberations except those concerning his own personal affairs, such as salary, etc. The gas and water commission is required to make a report each year to the administrative board, concerning the working of the department intrusted to its supervision and control. It must also prepare the budget, which, besides providing for the costs of the running expenses and the maintenance

of the works, shall also provide for a renewal fund, which is to be kept separate, and the interest of which is to be added to the capital. The commission has charge of the expenditure of all funds granted by the city authorities in the budget, or by extra appropriation in accordance with the provisions of such grants. The commission may also determine the price for the materials needed in the works, for the various kinds of labor to be performed in connection with the same, and for the by-products to be sold; but the city authorities, that is, the administrative board and the city council, acting together, may make changes in the prices fixed for the gas and water, as well as the discount to be offered to the consumer. The commission is authorized to make contracts, to conduct lawsuits, to make compromises, to yield or give up rights, to strike off bad debts, to submit matters of dispute to arbitration, to accept commodities and money, even from judicial sources; in a word, to do everything which the courts might demand from the representative of an absent party intrusted with full power of attorney. Written documents are valid for third parties when signed by two members of the commission, of whom, however, one must be a member of the administrative board and the other a member of the city council, and of whom one must be chairman or vice-chairman of the commission. The immediate conduct of the administration of the gas- and water-works within the limits of the budget, and in accordance with the provisions of local ordinance and regulation, is intrusted to the director of the same. It is his special duty to supervise all persons employed in connection with these works, to keep the works in good condition, to purchase all materials necessary for the same, to supervise all accounts relating to these and other matters, to give notice to the commission of the probable exhaustion of the appropriations, and to make a full report at the end of the year concerning the entire conduct of the works. The previous consent of the commission is necessary for any contract involving more than one thousand (1,000) marks, as well as any extension or change in the works themselves. The appointment of the director of the works and

the fixing of his salary are to be made by the city authorities, to whom the gas and water commission must make a formal report and proposition relating to this subject. The actual administration of the gas- and water-works under the conduct and control of the director shall be carried out by the necessary official and laboring force, appointed for this purpose. All such persons shall be engaged at first by the gas and water commission, and are to be dismissible at the pleasure of the same. The commission may propose to the administrative board the permanent appointment for life of any of these officials. The assessment of gas and water consumers shall be made in accordance with the regulations concerning the use of gas and water. A consumer may appeal to the commission against the decision of the director.

It will be seen that a very extensive jurisdiction has been assigned to this gas- and water-works commission, at the same time that it is under the immediate control and supervision of the administrative board.

In general it is evident from the above description that, although a considerable degree of independence is granted to these sub-commissions, deputations, or boards, as a matter of fact, great care is taken to secure a unity of administration, and the possibility of immediate and direct interference in the case of open abuses connected with the administration. Every member of the city council, for example, has the right to ask the administrative board why such and such abuses or such and such customs exist in any department of the city administration. It will not be a satisfactory answer, ordinarily, that the administrative board has no control over the matter, since that has been assigned by the law or local ordinance to some other authority, for in every individual case the administrative board has power to examine the facts, to require full and complete reports, and, if necessary, to suspend for a longer or shorter time the action of any of these boards. It has, moreover, delegates in each of these boards itself. Great care is taken to prevent any arbitrary action on the part of administrative officials by a very elaborate

system of appeals from the decision of individual officials to superior officials or boards.

There are other numerous boards, such as boards for assessment of taxes, trustees of the city museum, trustees of the city theater, trustees of the city stock-yards and slaughter-houses, of the city savings bank, of the city markets, of the city hospital, of the city pawn-shop, of the city fire department, of the city board of health, of the city cemeteries, etc. But the relation of all these boards to the city authorities in general, and to the administrative board in particular, is very much the same; some having a larger degree of independent jurisdiction than others, but all being subject to the general supervision of the administrative board, and of the mayor in particular.

Another important department of the city administration is the city civil service, including the officials of higher and lower rank, appointed for short terms, for definite terms, subject to removal upon notification; for indefinite terms, and for life. One may say, on the whole, that the tendency is steadily to diminish the number of people appointed for short periods, or those subject to dismissal upon notification, and to increase relatively the number of those who are appointed for indefinite terms or for life. Wherever it is plain that a city function calls for the exercise of all the time of an individual, and is likely to call for such exercise permanently, the tendency is to provide for a life position, subject to dismissal only after a judicial decision of incapacity or unfaithfulness, and including the right to a pension in case of faithful service through a long period of years. For the clerical work in the various departments a preliminary education is required, at least equal to that of graduation from the so-called middle-school (that is, a school which requires the time from say the sixth year until the sixteenth or seventeenth for the completion of its course), and the passing of an examination conducted by the mayor. Provision is made for a probationary term of service and for a gradual increase of salary after permanent appointment, and the promotion from one grade to another within the service, the highest title for

these clerical and administrative positions being that of "city secretary." In general, one does not seek to secure administrative efficiency in Prussia by conferring upon the mayor an arbitrary power of appointment or of dismissal; but rather by securing properly qualified persons for the civil service and protecting them in their positions as long as they perform their duties properly.

It is not perhaps necessary to go into a detailed description of this feature, as it is one easily understood in general, and yet rather difficult to set forth in detail without taking much more time and space than are available at present. One may characterize the government of the city of Halle, from one point of view, as a form of government in which the routine and clerical duties are performed by an experienced and permanent force of subordinate officials; in which the important matters of administration, those calling for the exercise of judgment and discretion and executive ability, are performed by a body of trained experts, who are required, however, to consult with and secure the consent of certain lay colleagues — the whole system subject further to the steady supervision, control, examination, and criticism of a popularly elected body of city councilmen.

Of course, no scheme of administration is ever successful simply because it is well devised and is harmonious in all its forms. A scheme of administration is at best simply a body through which the spirit works, a machine through which the energy exerts itself. The real driving force must be found in the character of the community and of the agents which it selects. The real motive power is in the steam or electricity, and the best devised mechanism or the most beautiful body is a dead and lifeless thing until it is put in motion by the energy or inspired by the soul. Still there is no doubt that the question of a good or a better administrative scheme is one of great importance, and there is as little doubt, it seems to me, that the Germans have worked out in their scheme of city administration, as illustrated in the above description of the government of the city of Halle, a device which is in harmony, on the whole, with

their traditions, their ideas, their tastes, and their notions, and that, on the whole, it has worked out, everything considered, good results.

This, of course, is not saying that the Germans themselves are satisfied in every respect with the existing machinery of city government or with the way in which this machinery works. On the contrary, as in every enterprising and thoughtful community, so here, there is a continued criticism of the administrative board and its functions, for example, on the part of the city council; of the city council and the manner in which it performs its duties, on the part of the administrative board; of both boards and the way in which they perform their duties, on the part of the general public as a whole. There is a dissatisfaction among the poorer classes of the community with the three-class system of voting. There is a feeling, whether just or not, on the part of the poorer classes of the community that the interests of the well-to-do are kept too exclusively or too generally in mind, that the interests of the small man are neglected or sacrificed. The foreigner, of course, should exercise the greatest reserve in attempting to form an opinion upon such a complicated and difficult question, and still greater reserve in expressing such opinion. But, on the whole, I have been struck by the extent to which the administration in the city of Halle has steadily extended the functions of the city government which may be supposed to redound more fully to the benefit of the poorer classes in society than to that of the wealthier. The effort has been steadily made, for example, to improve the elementary schools, and the improvement in building, equipment, and teaching force in the last fifteen or twenty years has been remarkable. The attempt to increase and improve the public parks and pleasure grounds of the people has been very noticeable. The tendency of the community to consider the needs and wants of the unfortunate, dependent, or less favorably situated classes has certainly been very marked, though the attempts, as in all countries and under all conditions, have not always been as successful as might have been wished.

One feature of this scheme of city government has been very noticeable, and that is that under the circumstances which have actually existed in the city of Halle during the last twenty-five years the mayor and the administrative board have constituted an active, progressive, if not aggressive and radical, element, in a positive city policy, looking toward steady improvement of city conditions in every direction. The present head mayor, who has occupied his position for some eighteen years, and the present mayor, who has just closed the first twenty-five years of his activity as a member of the board, as well as the other salaried members of this board, are men who, not only by their preliminary training, but by their experience in similar positions in other cities are thoroughly acquainted with the best things that are doing in cities that are similarly situated in Prussia, and are determined, as far as possible, to introduce every new improvement as rapidly as the community is ripe for it. My first visit to the city of Halle was made in the year 1875, and the revolution which has taken place in municipal conditions since that time is something little short of marvelous. The growth of the city in wealth and population, which has been a result, of course, largely of external rather than internal conditions, has been accompanied by marvelous improvements in all departments of city life, a greater improvement, I think one may say without any exaggeration, than was shown in the previous century and a half of the history of the city. Of course, this is itself largely an outgrowth of modern conditions, with which the city of Halle has had little or nothing to do; conditions which are at work, not only in Prussia and Germany, but in France, England, and America; conditions which have revolutionized in many directions the outward aspect and the inner constitution of large cities the world over; but, at any rate, this city has kept pace with the progress thus outlined and made possible by outside forces. The introduction of a more liberal and better supply of water; the regeneration of the city gas-works, and the steady reduction in the price of what has become almost a necessary of life; the introduction of a city

electric plant, now building; the establishment of a city stock-yard and slaughter-house; the introduction of a general sewer system, with all which that implies; the breaking through of new streets in the old part of the town and the widening of other streets; the repaving of the entire system, both in the roadway and in the sidewalks; the establishment of a city pawn-shop, a city savings bank; the improvement of the police system and fire department; the marvelous improvement in the school facilities of the elementary grade, and to a large extent of the higher, and the improvement in the administration of poor relief — these are things which have grown out of a positive and progressive policy on the part of the city authorities. Side by side with this has gone a marvelous improvement in the matter of railroad facilities — steam and electric; the introduction of the surface electric car, which Halle was the first city in Germany to introduce on a large scale; the connection of the city with all the surrounding villages by steam or electric tramways; the extending use of gas and electricity for power purposes; the adoption of a more liberal building law. All these things indicate the lines along which local improvement has proceeded, here as in other cities of Europe and America. The experience collected by German cities in these various departments is well worth the study of persons interested in municipal government the world over.

## CHAPTER II.

### Gas and Electricity.

Regeneration of the German city dates from the fifties of the last century. It was then that, owing to the growth of cities and to the general industrial, political, and social development of Germany, a new and more imperative demand for extended and better supplies of certain necessities of life revealed itself in nearly all progressive communities alike. Thus, the cities were compelled to provide, generally speaking, for a more adequate and a more satisfactory supply of water, due partly to an increase in population and partly to a higher social standard as to what adequacy and quality in this respect consisted in.

To provide this new water supply, however, it was necessary to make large expenditures — much larger than could be provided for out of the current income or current taxes of these communities. The municipal financial system had not been so fully developed that it was easy to borrow money at low rates for this purpose, and consequently very many of the German cities were compelled to intrust the provision of this necessity of life to the management and control of private companies. It was no uncommon thing, therefore, to find German cities conferring extensive privileges upon private water companies — privileges which in many instances have but just begun to expire. In nearly all cases the cities reserved to themselves the right, under certain conditions, of taking over the water supply upon payment of certain sums to the private companies. The experience of the cities with these private companies was, on the whole, so unsatisfactory that those which had taken up with this method in the forties and fifties soon made strenuous efforts to get rid of the private system and replace it by public construction, ownership, and management. The cities which in the sixties and seventies took up the question for the first time decided in most cases in favor of public water-works. As a consequence,

today nearly all German cities own and manage their own water-works. Private companies exist only under exceptional conditions—usually where the cities, owing to the shortsightedness of previous administrations, have bound themselves to greater sacrifices in case they desire to obtain the control of the water-works than on the whole they have been able or willing to make. But it is certainly true that everywhere in Germany the principle is now generally accepted that cities should own and operate their own water-works entirely.

The case is not altogether so clear, perhaps, in the matter of the supply of gas. The improvements in the processes of manufacturing gas made it a feasible thing for most communities to provide for the introduction of this luxury, which has now, one may say, become a necessity of life, in the forties and fifties. The same may be said of the early attempts to provide for a supply of gas as has been above remarked relative to water supplies. The cities were in many cases unable to provide the necessary funds for establishing public gas-works. Their administrations were very conservative and unwilling to take any great risks, and as a consequence the prevailing system during the fifties and sixties in Germany was that of intrusting this business to the ownership and control of private companies. But here the same tendency has made itself manifest to an increasing extent with every passing year, until the system of public ownership and control, if not quite so uniformly in the case of gas-works as in the case of water-works, has still come to be accepted as the proper and common one. In the year 1896, for example, 375 cities, large and small, in Germany owned and managed their own gas-works. Of these, 120 had tried the system of private works in the first instance, but had gone over subsequently, at very considerable sacrifice in the way of large payments to private companies, to the method of city works. So that one can say, generally speaking, that the principle of public ownership and management of gas-works is coming to be as generally accepted in Germany as that of the public ownership and management of water-works.

The introduction of electricity is still so recent that it is difficult to determine in any positive way what is the present tendency, taking the empire as a whole. I can only express it, therefore, as my opinion, based upon such information as I have been able to collect, that the tendency to the public ownership and management of electric plants is quite as marked, though not by any means so fully developed, as in the case of the other departments above mentioned. This is destined to be of even greater significance for certain phases of municipal administration than either water or gas. Where cities own and manage their own gas-works, it is evident that they must also own and manage their own electric plants, if they are to prevent a very serious and perhaps injurious competition with their system of gas-works. And it is my opinion that cities will either have to sell their gas-works to private companies, or else establish and maintain electric plants which can be worked in harmony and co-operation with the gas-works.

If cities establish, generally speaking, great electric plants, the question of the relation of the city to the street-car system will assume a new phase. Most of the German cities have either constructed the roadways of these street-car lines themselves or own them, even though they were constructed by private companies. If they now establish great electric plants which will have practically the monopoly of the furnishing of electricity for lighting and power purposes, it will be a comparatively small step from furnishing electricity to the street-car companies as traction power on their lines to taking over these street-car lines themselves. There are certainly very pronounced tendencies of this sort in nearly all German cities, and these tendencies are destined, in my opinion, to become even more marked than they are at present.

### SOCIALIZATION OF PUBLIC SERVICES.

One other circumstance of a general nature should perhaps be mentioned before passing on to the detailed discussion of the subject in hand. The policy of German cities in regard to these three necessities or conveniences of life has been dominated to some

extent by different principles, owing to the different purposes which were primarily in view in the construction of these works.[1]

The water-works were established primarily to provide an abundant and healthful supply of water for private individuals, more especially for domestic consumption. The importance of a liberal supply of water, however, as an element in public administration, for the purpose of sprinkling and cleaning the streets, for flushing the sewers, etc., and as an aid to industry, have both grown, relatively speaking, with great rapidity during the last generation. As a consequence, water-works would probably be kept up now for the sake of industry and for the sake of public health alone, irrespective of their relation to private convenience; but the fact that they were established in the first instance, not so much for the benefit of the public administration in general as for that of private individuals and in the interest of public health, has had a very pronounced influence upon the policy shown in managing these water-works and upon the tariff of charges for the use of water.

The establishment of gas-works by the cities, on the contrary, sprang in large part from the necessity which the cities had begun to feel of a better system of public lighting. It would hardly have been possible for the gas-works to have been established so early in the history of these communities, if it had not been that the city would itself, for purposes of public administration, be a large consumer of the product of these works. As a matter of fact, it has continued to the present time to be the largest single consumer, and in many cases consumes nearly as much as all the other consumers put together. The feeling that gas was a luxury, or at most a convenience, of life led the cities to adopt a system of management which has distinguished it very clearly from that of water-works. Generally speaking, the

[1] The following leading cities of Germany own and operate their own electric plants: Barmen, Breslau (373,163), Bremen, Cassel, Dantsic (125,505), Dortmund, Dresden, Düsseldorf, Elberfeld, Hannover (209,535), Cologne (321,563), Königsberg, Krefeld, Lübeck, Mayence, Nuremberg, Chemnitz, Frankfurt (229,279).

The city of Frankfurt took over April 1, 1900, the entire system of street railways, to be operated by electricity from the city works.

element of net profit, the idea of securing a net income for the use of the city from the management of these works, has been an important one in the control and management of all the public gas-works of Germany. As a result, what may be called the social point of view, that is, the view which looks upon gas as such a great convenience of life that its general use is to be desired in the interest of an advancing civilization and an advancing ease and refinement of life, and that consequently financial sacrifices may be made for this purpose, is a view which has only very slowly succeeded in making way into the minds of the managers of public gas-works in Germany. As a result, generally speaking, the prices have been kept high, the facilities for the use of gas have been rather meager, and comparatively little effort has been made to enlarge the consumption.

Something of the same thing was true in the establishment of electric works. Here it was possible for the city to establish a small plant for furnishing light exclusively for city purposes, such as the lighting of public buildings, etc., upon a basis which made it fairly profitable for the city, irrespective of the number of private consumers who might take part in the support of such works. And it is quite possible that cities would have contented themselves with the erection of small plants for providing in this way the light desired for public offices and public illumination, without attempting to create a market for electricity in the mass of the public, if it had not been that the ever more imperative demand for electricity for purposes of lighting and power on the part of private individuals began to create a very sharp and severely felt competition with the products of city gas-works. Then the cities began to recognize that something of the same course of development would surely follow in the case of electric plants as in the case of gas and water.

It was impossible for cities to erect gas-works for the purpose of furnishing gas to the city administration for city purposes at a reasonable price, unless a large number of private consumers could also be obtained whose consumption would help decrease the expense. Consequently the cities, in the

management of the works, were compelled to have some reference to the needs of private consumers. In the case of electric works it was necessary for the city to furnish electricity to private consumers, if it was to avoid ruinous competition with its own system of gas-works, and thus, generally speaking, gas and electricity, from being looked upon as articles of luxury, have become first articles of convenience and finally articles of necessity, and cities are now everywhere recognizing that there is a social advantage, an industrial advantage, to be found in a liberal and cheap supply of gas and electricity, offered on the most favorable terms to every individual in the community. As a result of the recognition of this fact, there has come into the management of all public works of this sort in Germany within the last few years an entirely new spirit, which is destined to work out the most far-reaching results. Men are beginning to see that the supply of power at low rates to the small man in the most remote cities of the empire means an increase of the power of Germany as a whole to compete with the foreigners in the world's market upon the most favorable terms. The fact that a city offers such facilities is, of course, a very great inducement to people who need power in the working of their industries, who need it in small quantities and at low prices, to settle in these particular places rather than in others in Germany. The fact that such facilities are offered in Germany is significant for modern world-industry, and in proportion to the extent to which they are offered does Germany as a whole become a more important element in the world-market in every department of manufacture.

So much for what may be called the general course of development on this subject in Germany. Without being able to establish the proposition within the limits of such a work as this, I think I may lay it down as true, without fear of successful contradiction, that the tendency in Germany is steadily and rapidly toward public construction, ownership, and management of all water-works, gas-works, electric plants, and street railways, and that on the whole the policy underlying the management of

these different departments of public administration is that of lowering the prices and increasing the facilities in the interest of a larger and healthful life, in the interest of an advancing industry, and in the interest of improvement of higher social conditions. This tendency is fairly represented in the history of the city of Halle in these matters.

## I.

### ESTABLISHMENT AND DEVELOPMENT OF THE GAS-WORKS.

As the result of an agitation extending over several years in the early and middle part of the fifties in the last century, the city administration, after having secured the promise of a large number of citizens to take gas at a certain price and in a certain quantity from the public works, received the consent of the superior administrative authorities to construct and operate a system of city works. The land was purchased for this purpose, a public loan was contracted, and the works were erected and went into operation on December 14, 1856. They have been continuously in operation from that date to the present, and, although the experience of the city during the first two years was rather unfortunate, still there has never been any serious proposition to hand over this department of public administration to any private company. The works have been gradually extended; the consumption of the city has grown, not only with the population, but relatively much faster than the population, the latter having increased less than three-fold, while the former increased more than nine-fold, in the thirty-five years from 1862 to 1897. Whatever charges may be made against the administration of the city gas-works, it cannot be denied that after they were fairly at work they have been administered with honesty and efficiency, within the limits of the principles adopted by the city; but one may criticise at more points than one the principles laid down by the city within which the works were to be administered.

The following tables set forth the growth of the works during the forty years — 1856–97 — by five-year periods; and the recent growth by years:

TABLE A. DISTRIBUTION OF GAS (1856–97).

| Period.[1] | Population. | Production. (Cubic Meters.) | Public Lighting. (Streets and Squares.) | | Sold to Private Consumers and Public Offices. | | Used in the Works. | | Loss. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Cubic Meters. | Per Cent. | Cubic Meters. | Per Cent. | Cubic Meters. | Per Cent. | Cubic Meters. | Per Cent. |
| 1856–62 | 41,507 | 2,870,574 | 431,651 | 15.3 | 1,870,461 | 65.1 | 52,539 | 1.8 | 514,843 | 17.9 |
| 1862–67 | 48,940 | 4,530,572 | 618,657 | 13.6 | 3,267,294 | 72.1 | 65,834 | 1.4 | 577,612 | 12.7 |
| 1867–72 | 54,314 | 6,423,774 | 852,989 | 13.2 | 4,794,003 | 74.6 | 71,811 | 1.1 | 705,026 | 10.9 |
| 1872–77 | 65,140 | 10,142,560 | 1,068,478 | 10.5 | 7,711,424 | 76.0 | 82,957 | 0.8 | 1,280,551 | 12.6 |
| 1877–82 | 74,816 | 12,211,736 | 1,533,216 | 12.5 | 9,112,957 | 74.6 | 187,048 | 1.5 | 1,375,015 | 11.2 |
| 1882–87 | 87,373 | 16,856,680 | 2,921,100 | 17.5 | 11,968,424 | 71.0 | 165,706 | 0.9 | 1,801,250 | 10.6 |
| 1887–92 | 106,000 | 24,151,300 | 4,674,597 | 19.4 | 16,375,326 | 67.8 | 293,003 | 1.2 | 2,804,174 | 11.6 |
| 1892–97 | 122,206 | 26,634,920 | 6,634,818 | 24.9 | 17,661,022 | 66.2 | 290,092 | 1.1 | 2,048,538 | 7.7 |
| Total | | 103,822,116 | 18,735,506 | | 72,760,911 | | 1,208,990 | | 11,107,009 | |

TABLE B. DISTRIBUTION OF GAS (1894–99).

| Year. | Consumption per Capita. (Cubic Meters.) | Production. (Cubic Meters.) | Public Lighting. (Streets and Squares.) | | Sold to Private Consumers and Public Offices. | | Used in the Works. | | Loss. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Cubic Meters. | Per Cent. | Cubic Meters. | Per Cent. | Cubic Meters. | Per Cent. | Cubic Meters. | Per Cent. |
| 1894–95 | 42.75 | 5,168,280 | 1,369,977 | 28.8 | 3,336,751 | 70.0 | 55,426 | 1.2 | ..... | ... |
| 1895–96 | 43.33 | 5,513,040 | 1,348,677 | 24.5 | 3,630,301 | 66.8 | 55,954 | 1.0 | 481,208 | 8.7 |
| 1896–97 | 46.15 | 5,891,120 | 1,390,226 | 23.6 | 4,026,285 | 68.4 | 58,748 | 1.0 | 412,511 | 7.0 |
| 1897–98 | 48.25 | 6,223,250 | 1,376,960 | 22.1 | 4,408,643 | 70.8 | 74,737 | 1.2 | 364,010 | 5.9 |
| 1898–99 | 57.37 | 6,956,720 | 1,217,561 | 17.5 | 5,141,350 | 74.0 | 83,722 | 1.2 | 504,387 | 7.3 |

[1] The first period is from December 14, 1856, to June 30, 1862. The fiscal year was changed in 1887 so as to close March 31.

[2] A cubic meter = 35.3 English cubic feet. 28.3 cu. m. = 1,000 Eng. cu. ft.

TABLE C. FINANCIAL ACCOUNTS[1] (1856–97).

(March 31, 1897, $482,058 book value of plant.)

| Period. | Sinking Fund. | Profits Paid into City Treasury. | Cost of Works and Extensions. | Depreciation Fund. |
|---|---|---|---|---|
| 1856–62 | $20,633 | ..... | $183,190 | $ 15,396 |
| 1862–67 | 56,543 | ..... | 21,596 | 16,101 |
| 1867–72 | 19,271 | $ 64,703 | 6,994 | 15,766 |
| 1872–77 | 22,579 | 94,738 | 70,584 | 19,085 |
| 1877–82 | 62,006 | 158,940 | 152,471 | 29,061 |
| 1882–87 | 70,275 | 174,642 | 55,255 | 34,278 |
| 1887–92 | 43,631 | 299,587 | 285,879 | 67,069 |
| 1892–99 | 22,606 | 356,047 | 92,769 | 106,804 |
| Total | $317,544 | $1,148,657 | $868,738 | $303,561 |

TABLE D. FINANCIAL ACCOUNTS[1] (1894–99).

| Year. | Sinking Fund. | Profits Paid into City Treasury. | Cost of Works and Extensions. | Depreciation Fund. |
|---|---|---|---|---|
| 1894–95 | $4,480 | $68,155 | $805,239 | $17,125 |
| 1895–96 | 4,480 | 71,881 | 824,709 | 19,230 |
| 1896–97 | 4,480 | 75,516 | ..... | 27,540 |
| 1897–98 | 4,480 | 79,591 | 978,534 | 34,187 |
| 1898–99 | 7,808 | 71,913 | 1,012,945 | 37,023 |

The following table shows the use of gas for cooking, heating, and power purposes during the six years ending March 31, 1899:

TABLE E.

| Year. | Cook'g and Heat'g. (Cubic Meters.) | Power. (Cubic Meters.) | Total. (Cubic Meters.) | Per Cent. of Total Amount of Gas Produced. |
|---|---|---|---|---|
| 1893–94 | 53,148 | 366,543 | ..... | ..... |
| 1894–95 | 109,417 | 420,406 | 529,823 | 10.2 |
| 1895–96 | 117,920 | 499,506 | 617,506 | 11.2 |
| 1896–97 | 180,798 | 566,321 | 756,119 | 12.8 |
| 1897–98 | 230,466 | 644,171 | 874,637 | 14.0 |
| 1898–99 | 321,018 | 845,045 | 1,166,063 | 16.8 |

It will be seen that the consumption per head of the population increased during the last quinquennium from 42.75 to 51.37 cu. m., showing a steady relative increase during this period.

[1] In changing to American money, 4 marks = $1.

The present capacity of the works is about 47,500 cu. m. per day.

TARIFF OF CHARGES.

The following represents the course of prices charged for gas in the city works of Halle, from the establishment of the works to the present time:

1. Charge to private consumers per thousand English cubic feet for illuminating gas:

| | |
|---|---|
| 1856 | $1.67 |
| 1859 | 1.88 |
| 1864 | 1.44 |
| 1870 | 1.35 |
| 1872 | 1.21 |
| 1898 | 1.08 |

2. Price to private consumers per thousand English cubic feet for heating, cooking, and power purposes:

| | |
|---|---|
| Up to 1887 | same as for lighting. |
| From 1887 to 1894 | $0.91 |
| Since 1894 | 0.6739 |

The above represents what may be called the normal or fundamental prices to private individuals. A discount has always been allowed, increasing in proportion to the amount consumed, varying from 2½ per cent. for 10,000 cu. m. or more up to 25 per cent. for 50,000 cu. m. and more. No discount, however, was given after 1887 upon gas used for heating, cooking, and power purposes, being straight $0.91 from 1887 to 1894 and straight $0.6739 since that time. In the year 1898–99 eleven consumers obtained the 25 per cent. rebate. Among these was the city, for all gas consumed in public offices. Nine obtained 20 per cent.; five, 15 per cent.; twenty, 10 per cent.; fifty-one, 5 per cent.; two hundred and seventy-six, 2½ per cent. Out of a total of 3,651,581.49 cu. m. sold for illuminating purposes, 2,678,915 cu. m. were sold at discounts varying from 2½ per cent. to 25 per cent.

Down to the year 1887 the city was obliged to pay for all gas consumed at the same rate as private persons, though its

consumption was always sufficient to enable it to obtain the 25 per cent. discount. From 1887 to 1898 it obtained gas for the purpose of street lighting at the rate of $0.91 per thousand cubic feet, subject to no discount. This, it will be seen, was no real reduction, since $1.21 less 25 per cent. = $0.91. Since 1898 it obtains gas for the purpose of street lighting at $0.6739 per thousand cubic feet, subject to no discount. That is to say, for gas consumed in public offices the city has always paid and still continues to pay at exactly the same rate as private individuals, obtaining the largest allowable discount because its consumption always exceeds the largest amount for which the discount is granted. For purposes of street lighting it had the same terms down to 1887. After that it was given the same rate for street lighting as private parties received for heating, cooking, and power purposes. The reduction which was made to private parties for heating, cooking, and power purposes, in 1894, was not granted to the city for street-lighting purposes until the year 1898.

Until the close of the fiscal year 1897–98, that is, March 31, 1898, the city gas-works made a charge for the use of meters, which constituted for the small consumer a very serious addition to the price of gas. It also charged the private consumer with the cost of connections from a point six feet outside of the building line to the meter in the house. This constituted a very serious obstacle to the general introduction of gas into the houses. Beginning with the first of April, 1898, three important concessions were made in the matter of price and convenience to the gas consumer. The price of gas for illuminating purposes was reduced, as will be seen from the above table, from $1.21 to $1.08 per thousand cubic feet. The city gas-works undertook to make connections at its own cost up to and including the meter, making no charge for the use of the latter, provided a certain minimum amount of gas was consumed. So that one may say now, what one could not say prior to the first of April, 1898, that the cost of gas to the private consumer in his own dwelling for illuminating purposes, or for heating, cooking, or power purposes, is the

same as that quoted nominally in the tariff of charges, namely, $1.08 and $0.6739 respectively.

### METHODS OF BOOKKEEPING.

It is difficult to ascertain from the printed reports of any corporation the exact condition of its business. It is still more difficult, generally speaking, in the case of municipal corporations. And it is most difficult of all in case of those branches of municipal administration which one may desire to compare with private corporations as to cost of the plant, running expenses, profits, etc. The books of the gas-works of Halle show the entire expense of the works from the beginning to the present. They show that the works have been compelled to purchase the ground upon which they are erected, either from the city or from private parties, and that, therefore, the cost of the site is included in the cost of the plant. They show, moreover, that gas has not been furnished to the city at any time free of charge, but that it has had to pay for every cubic meter of gas consumed, though it has generally been placed in the position of the most favored consumer, owing to its large consumption. Thus, at present the city pays the same rate, as noted above, for purposes of street lighting as the private consumer pays for cooking, heating, and power purposes. It pays the same for lighting in the offices as the private consumer pays for gas for illuminating purposes. From 1894 to 1898 the private consumer was somewhat better placed in the matter of rates for gas used for cooking, heating, and power purposes than the city for street lighting. Just how much of a concession this has been to the city it is, of course, difficult to tell, and the books do not show any special reckoning or account of this item.

No set-off is noted in the books for taxes, corresponding to the taxes which a private corporation would be obliged to pay, under the ordinary rules prescribed for such companies. The works have always had to pay a state tax, under the head of the trade tax, amounting of late years to something like $1,500 a year. And, although the proceeds of this tax are now handed

over by the state to the city for municipal uses, this item of $1,500 a year for taxes still appears in the books. No item appears on the books corresponding to the special sum which a private gas company might be obliged to pay for the concession or the monopoly right to furnish gas to the community. The books show that a sinking fund has always been created whenever a debt has been created, amounting to at least 1 per cent. a year. They also show that a renewal fund has been accumulated from time to time in anticipation of the necessity of reconstructing the works in order to bring them into harmony with improved and advanced conditions. The books also show that very considerable sums have been charged to the depreciation fund — sums sufficient to keep the works in good condition and, as experience has shown, to provide for extensions from year to year. Aside from the sinking fund, the renewal fund, and the depreciation fund, considerable sums have been entered every year under the head of maintenance, which might have been charged to the capital account.

No one can examine these books without being convinced that the gas-works on the whole show a very conservative and very sound system of bookkeeping. Thus, if one deducts from the total cost of the works the sums charged off for depreciation, one obtains a book value of 2,220,241.08 marks ($555,060) at the end of the year 1898–99. This represents a very conservative estimate of the present value of the works. It is the opinion of the director of the works and others with whom I spoke in the city that the works could be sold today as they stand for a considerably larger sum than this to a private company, not including, of course, the price which the company would be willing to pay for the franchise or for the monopoly right of furnishing the gas to the community. In other words, the system of bookkeeping has been such as to make all proper allowances for depreciation of the works, and the sums written off each year have not only been sufficient to pay interest on the bonded debt, but also to accumulate a sinking fund equal to retiring the bonds when they fall due; not only a sum sufficient

to keep the works in the present condition, but also a sum sufficient to reconstruct the works whenever the advance of science and technology should make this necessary or desirable, and, furthermore, to extend every year by a considerable amount the system of pipes, etc., connections with the houses, meters, plant, etc., etc.

The net income of the works, based upon the estimate of the state tax commission assessing them to the trade tax, was for the past year 338,113.74 marks ($84,528). The capitalized value of the plant, according to the same estimate, was 2,741,815.45 marks ($685,454). This would show that the works paid a dividend of 12.3 per cent. on the capital value of the plant, or a dividend of 3 per cent. on more than ten millions of marks, while the actual book value, as shown above, is less than two and a half million marks. Of course, in this larger value would be included the value of the franchise; but, even so, this shows a very conservative estimate of the value of the works in the accounts of the works themselves.

The accounts of the works for the year ending March 31, 1899, show that the total income was 1,416,111 marks ($354,028). Of this, 287,652 marks ($71,913) were turned into the city treasury, representing 20 per cent. of the total income; 90,192.20 marks ($22,548) were set aside for extensions of the plant, representing 6 per cent. of the total income; 30,000 marks ($7,500) were set aside for the renewal fund, representing 2 per cent. of the total income; 31,231 marks ($7,808) were set aside for the sinking fund, representing 2 per cent. of the total income; 36,138 marks ($9,034) were used for the purchase of new instruments, apparatus, gas meters, etc., representing, therefore, an actual increase of the plant to that amount, equal to 2 per cent. of the total income. A balance was left on hand of 27,823 marks ($6,956), which, together with the sums already indicated, made up a total of 503,036 marks ($125,759), leaving a sum of 913,075 marks ($228,269) to represent the current expenses of the works. In this sum, however, again very considerable items were included for cost of maintenance, which conception covered also in

certain instances actual additions to the plant. If we count the renewals, extensions, and the purchase of new equipment, it will be found that about 7 per cent. of the book value of the works at the end of the preceding year had been added to the plant during the current year — 1898–99. The accounts show that the works have written off during the past years an average of 3 per cent. a year under the head of deterioration to the account of lands, 3 per cent. for buildings, 10 per cent. for apparatus (retorts, furnaces, etc.), 7½ per cent. for the pipe system, 20 per cent. for implements, 20 per cent. for meters, etc., etc. Thirty per cent. was written off during the past year for house connections, since, under the arrangement now in existence, connections made by the gas-works within the property of the house-owner pass into the possession of the house-owner himself. From whatever point of view, therefore, the accounts are examined, it would seem as if the gas-works are pursuing a very conservative and safe policy, maintaining the works in their present condition, extending them, and improving them.

### RESULTS OF MUNICIPAL OPERATION.

If we sum up the results achieved by the gas-works of the city during the period from 1857 to 1899, we should note especially the following points: In the first place, the city now has in its possession and entirely at its disposal, to do with as it chooses, a plant for the manufacture of gas, with a capacity of 17,327,500 cu. m. per year, with a capitalized value, after deducting all debts and obligations of every sort, of 2,241,873 marks ($560,468), capable of paying dividends on a capital of from ten to twelve millions.

In the second place, a plant from which the city has derived a very large sum in net profits, amounting all told to more than five millions of marks ($1,250,000).

In the third place, the city has enjoyed during all these years the advantage of a liberal gas supply for public purposes, street illumination, and public offices, at a price considerably below the average price charged for gas by private companies or cities in Germany at large.

In the fourth place, the private citizens have had the advantage of comparatively low prices for gas during the entire existence of the works, for if the tariff of charges made in Halle be compared with that in other cities, whether made by city works or private works, it will be found that prices in Halle are on the whole slightly below those of cities similarly situated.

The city has, moreover, the very great advantage of being in a position to regulate the policy of the gas-works in accordance with its notions of the best interests of the city and the citizens, without having to pay a private company large sums of money for this privilege. How important this is may be seen from the recent events in the history of the city mentioned already in the above paragraphs. It was felt that the prices of gas should be lowered to the private consumer and to the city. It would have been difficult to have brought this about under a system of a private management. A mere resolution of the city council was sufficient to accomplish this, beginning with April 1, 1898, and, as noted above, this was not simply a reduction in the price charged for gas, but it involved a very large additional reduction to the small consumer, because at the same time the charge for meter rent was practically abolished and the cost of making connections was assumed by the gas-works.

It is an interesting fact, which may be mentioned in this connection, that the introduction of the so-called glow burner, the Auer or Welsbach burner, has had a very material influence upon the course of prices and the course of consumption. The general introduction of this burner enabled the private consumer to obtain a very much better quality of light at a much lower price, owing to the smaller consumption of gas, than had been hitherto possible. This led, on the one hand, of course, to a certain reduction in the amount of gas consumed for lighting purposes per light; but, on the other hand, owing to the very greatly increased attractiveness of this light, it led many people to prefer the introduction of gas to the continued consumption of coal oil. An increased price of the coal oil itself was not without effect in stimulating this gas consumption. And, as said above,

the competition which private electric plants were making with the city works was so seriously felt as to lead the city to make concessions in this matter which it might not formerly have done.

It is worthy of note that the city works have lately adopted, for the first time in their history, a new point of view, namely, that it lies in the interest of the community as a whole to increase the consumption of gas, to supplant the use of coal, with all the inconvenience and dirt connected with it, by the use of gas; and, for the first time in the history of the works, during the past four or five years efforts have been made to extend the use of gas, not only by the reduction of price and the abolition of obstacles to the introduction of gas, but by a positive recommendation of the use of gas to the public, such as the holding of exhibits of gas stoves, heaters, etc., and public lectures upon the method of utilizing gas for cooking, heating, and power purposes.[1]

It is, furthermore, a point not to be underestimated that the city, having control of these works, may furnish gas for power purposes at a rate at which no private company would undertake to offer it. This policy is justifiable because the existence of a cheap, easily divided power facilitates the development of many forms of industry which might not otherwise be so easily possible.

Whether private works would have accomplished the above results, or, if not the above, other and more favorable results, cannot, of course, be determined in any positive way by an examination of the history and working of this municipal enterprise. But it is certain that neither the city as a whole, nor indeed any individual in the city who is not connected with

[1] It should be stated that thus far but little use of gas has been made in Halle for the purpose of illumination in private houses. Nearly the entire consumption up to within a year or two has been for public lighting (either streets or offices) and in the shops, factories, stores, banks, etc. The city works have, therefore, before them an almost unexploited field of possible consumption, which is likely to prove more profitable every year; though this very fact, it must be admitted, is a just cause of reproach to the administration, in that it has not worked this field long before.

some private gas company, would consider for an instant the advantages which a private company might offer when laid in the balance against those which the city works secure. There seems to be an opinion in Halle, both at the works and at large in the city, that no special concessions have been made to the laborers at the works. The administration has aimed to pay the usual local rate of wages — neither more nor less. The greater permanence of employment makes the work, on the whole, so attractive that they can have their pick among the laborers in the community. The effort is made to keep the same laborers as long as possible, and, if they have grown old in the service they will not be allowed to starve, even if they become incapacitated for work. The city gas-works are subject to the general imperial laws relating to compulsory insurance which are applicable to all employers of labor.

The latest published report of the city gas-works — that for the year ending March 31, 1900, which appeared after the above account was written — states that the rapid increase in the consumption of gas in the preceding year, following the reduction of price, had continued during the current year. The total consumption reached the figure of 7,851,980 cubic meters, an increase of over 13 per cent. The sales to private consumers increased in a still greater ratio, the total increase amounting to 1,047,304 cu. m., or more than 20 per cent. Of this total, 365,614 cu. m. fell to the share of gas for illuminating purposes, and 681,690 cu. m. to that for heating and power purposes. Almost half of the latter item is to be ascribed to one manufacturing plant using the gas for technical purposes. In view of this large consumption distributed during the daylight hours, the price was reduced, for gas used for other than illuminating purposes, from 10 pfennigs, the regular price, to 9½ pfennigs in case 100,000 cu. m. were used, and to 9 pfennigs for quantities of 200,000 cu. m. and over. In the same way the number of consumers has increased very rapidly since the reduction in price of April 1, 1898. The number of meters for illuminating gas increased from 2,975 to 4,076, more than one-third in two years. The meters for other than

illuminating gas increased in number from 835 to 1,267, and the number of cooking and heating stoves from 740 to 1,240.

In spite of the decreased average income per cubic meter of gas, owing to the reduction in price, the profits are higher for the current year than one would have inferred simply from the increased consumption of gas. The net profit amounted to 389,470 marks, an increase of more than 22 per cent. over the profits of the preceding year, which is to be attributed partly to a lower rate of leakage and partly to a higher price of coke.

It is plain that the policy of reducing the price is thus justified, not merely from the standpoint of the social result, but also from that of the financial profits of the undertaking.

## II.

### THE CITY ELECTRIC PLANT.

Since the introduction of electricity in the years 1887–91, and the rapidly growing utilization of the same for purposes of lighting and for power, German cities have had to face the question whether they would grant to private companies the right to lay their wires in the city streets and furnish electricity to private consumers, or whether they would undertake the manufacture and sale of electricity themselves. They have shown a certain reluctance to embark upon the business of furnishing electricity to private parties. As a result, in many directions electricity has not been introduced as rapidly as it would have been introduced if the cities had been willing to grant permission to private companies to undertake this work. Halle is perhaps a good example of this fact. Up to the present, electricity has not found that wide, extended application for purposes of lighting and power in the city of Halle which one might have expected from the rapidly growing industrial character of the city. The city has refused to grant permission to private companies to lay their wires in the streets, and as a result electric lighting is very largely limited to individual

plants or blocks of land which can be reached from all parts without making use of public highways.[1]

The general introduction of the Auer burner, spoken of above, has tended to reconcile the people to the lack of electricity for lighting purposes, but the pressure on the part of private individuals and of public companies for a supply of electricity finally became so great that the city was compelled to take up a definite and distinct attitude toward this problem. The feeling at first was overwhelmingly in favor of granting a concession to a private company and making such terms for the grant of the franchise as the city might be able to do. Various commissions were appointed. Some of these made very careful technical examinations with the aid of technical experts. Some of them visited the works built in other cities. And the final outcome of the whole movement, after a very excited and in some respects bitter discussion, was an overwhelming vote in the city council in favor of public construction, ownership, and management of an electric plant. It is an interesting fact that all experts consulted by the city council or its committees, who were not personally connected with some private electric company, advised the city by all means to install its own electric plant, to construct, own, and operate it on its own account, without recourse to the medium of a private company.

The arguments advanced by Professor Karl Schmidt, of the University of Halle, in favor of city management, were convincing, and, when supported by the opinion of Dr. Klingenberg, of Berlin, commanded the assent of the city authorities. It appears from their report that they sent a schedule of questions to thirty-one cities, which in their size or their industrial importance might be compared with Halle. Of twenty-nine cities from which they obtained reports, twenty-two owned their own electric plants, and after April 1, 1899, nineteen of them managed

[1] So far has this unwillingness to favor electricity gone that the city works have uniformly refused to give the lowest rate of 10 pfennigs per cubic meter to consumers who used the gas to drive engines for the manufacture of electricity for lighting purposes, *i. e.*, they refused to favor their competitors in the business of furnishing light, even though they were entitled to this favor under the general rule.

their own works directly, only ten out of the twenty-nine having intrusted the management to private hands. Cassel, Elberfeld, and Cologne are building new and extensive plants at their own cost, and will undertake the management of the new works. It is important to notice that these cities, at a time when it is necessary to construct entirely new plants, have decided that they would construct and manage them themselves, after having had an experience of from nine to twelve years with the older type of works. The statement is made by the committee which visited these various plants that it found the public sentiment nearly universal that a city like Halle, in which industry has taken on such an enormous expansion of late years, ought not to hesitate a moment to construct and manage its own electric plant. It was the opinion of the experts without exception that the construction and management of an electric plant is much simpler than the construction and management of gas-works, and that where a city has successfully performed the latter, it may without doubt do the former.

It will be of interest to note the points which Professor Klingenberg made in favor of public works, for it was his argument which finally decided the question in favor of a city plant.

He called attention in his expert report to the fact that experience had shown ever more clearly that those cities which did not own and manage their own gas-works and their own water-works were at a great disadvantage as compared with those cities which did; and in his opinion the same thing was true now, and would be still truer in the future, of electric plants.

It is possible that a city may make an agreement with a private company which, for the immediate present, would be satisfactory and fair to both parties, but in a department of industry where changes are so rapid, experience has shown that it is extremely difficult for a city to change its contract with a private company in such a way as to be of advantage to it. It must nearly always pay a very high sum for the privilege of doing so. As the private companies are thus successful in opposing any change from which they do not derive the very

highest advantage, the city is practically compelled to hand over to the private company a much larger proportion of the returns than would otherwise be necessary. He called attention further to the fact that the city which owns gas-works can hardly permit a private electric company to come in and compete with it, as the situation would become practically untenable for one or the other. He emphasizes, moreover, the fact of the great advantage which a city may obtain from having the power of altering the rates in accordance with its general industrial and social interests, without consulting the special interests of a private company. He is, moreover, of the opinion that, judging from experience, it is impossible to make an agreement with a private company by which the works can be kept in a proper condition, and handed over to the city at the expiration of a lease under conditions which will be reasonably favorable.

As a result of these various reports, a commission worked out an estimate of the cost of the enterprise, which was laid before the city council on November 7, 1899. The proposition called for an appropriation of 2,600,000 marks ($650,000). It was approved by the city authorities, and a public loan was negotiated, at the rate of 3¾ per cent., from the city savings bank.

The city has thus begun the experiment of a city electric plant to furnish light and power for illumination, cooking, heating, and driving machinery. The experiment is likely to have far-reaching results. Already the city authorities are working out a plan of assuming the entire system of street railways in the city, which was built by private companies and is run by electricity. The city may purchase these roads under the terms indicated in the contracts between the private companies and the city, and it is believed that a favorable opportunity is now offered of managing them at a reasonable rate. There is little doubt that before long the entire system of railways, considerably enlarged and extended, will be in the hands of the city.

What the practical outcome of this state of things will be is, of course, something for the future to decide. But, judging from the experience of the city administration up to the present time,

there is every reason to anticipate a successful result, even though it may not in all respects correspond to what the advocate of private ownership would claim for the private system. It is interesting to note, by the way, that Halle was the first city in Germany to introduce a system of electric traction in its street-car system upon a large scale. It is extremely well provided with street-car facilities, as such cities go in Germany. The rates are low and the service satisfactory. The city receives a certain proportion of the net profits of the companies. Whether it would make a better bargain with private companies to continue the present system, or would obtain greater profits by undertaking the management itself, is something, of course, which at the present writing nobody can determine; but public opinion is drifting rapidly and surely to the side of public ownership and management.

Since writing the above, the whole question of the relation of local transportation to city administration in Halle has entered a new stage. The owners of one of the street-car systems have offered to sell it to the city, and it seems as if the offer would be accepted. A careful investigation was made under the supervision of the administrative board into the expediency of such purchase. The director of the city electric plant, after going into a detailed consideration of the probable growth of traffic, the value of the existing plant, the probable value of the plant which the city would receive at the end of the franchise under the existing contract, etc., recommended that the city accept the offer, though he was obliged to confess that the price asked was higher than the real present value as tested by immediate earning power.

On the basis of this and other reports, the administrative board, by a unanimous vote, recommended to the city council, May 6, 1900, that the offer of the company be accepted, and that the city purchase the system known as the "City Railroad," comprising some seventeen miles of track, at the price of $625,000, or somewhat more than $36,000 a mile.

It is interesting to note the arguments advanced by the

administrative board in favor of the proposed action. Three considerations, they declared, had led them to this conclusion. In the first place, they did not wish to see the future development of one of the most important means of communication dependent any longer on the private interests of a corporation managed primarily for profit. In the second place, they looked upon it as a function of municipal administration to secure for the city treasury the profits of flourishing public undertakings, so as to prevent the necessity of an ever-increasing tax-rate. In the third place, they saw in the enlarged system a very important, if not absolutely indispensable, customer for the products of the city electric plant, thus insuring its increasing profit. The further consideration should not be overlooked that now was a favorable time to buy. The road had just reconstructed, at considerable expense, a large part of its plant, which was now in first-rate condition. It had also extended the mileage by the construction of compulsory lines, which had not yet become profitable, though they would surely become so in a short time. The result of these large expenditures had been to depress the dividend from an average of more than 7 per cent. for the three preceding years to 4 per cent., thus making the company willing to take less than it would in a year or two, when the result of these new extensions would show itself in rising dividends.

It is evident that the first three arguments apply, *ceteris paribus*, in other cities than Halle, and thus point to a steadily growing tendency on the part of German cities to assume provision of means of local transportation.

## CHAPTER III.

### The Water Supply.

In no department of municipal administration can the changing ideals and advancing standards of modern society be more clearly traced than in that of the supply of water. The modern conception of the relation of an abundant, pure, cheap, and convenient supply of this necessity of life to the health, comfort, and industry of the community is as different from the ideal or practice of the ancient or mediæval city as can be imagined. The ancient world provided, it is true, in many instances, a most elaborate and abundant supply of water for the public buildings, temples, fountains, and public baths of the city; but, so far as is known, no such city conceived the idea of actually putting an adequate supply of water into every house and upon the floor of every house. Nor did this arise simply from an ignorance of the laws of hydraulics, as is sometimes asserted, nor from an ignorance of how to make pipes capable of withstanding great pressure. It was the natural outcome of the social and economic conditions of the time. In a society based on slavery there was no reason why the labor-saving devices necessary in a modern city should either have been worked out or applied. The slaves — either men or women — were able to get all the water necessary for domestic consumption at public or private wells or fountains; although the simple burden of carrying water from the points where it was provided by the community to the places where it was needed constituted then, as it would now, a most serious economic waste.

The mediæval city rarely rose to the conception or realization of the ancient city. The people contrived to get along with a very meager water supply, drawn from rivers polluted by the industrial or domestic waste of the inhabitants, or from wells sunk in the immediate proximity of the houses. The mediæval

man or woman, as tried by modern standards, was not a cleanly person, and the mediæval city was, generally speaking, a cesspool of undescribable dirt and filth.

It was reserved for the modern city to set up an entirely new standard in regard to the water supply — a standard which reflects the progress which the modern city has made as compared with the ancient or mediæval, while it has been one of the most efficient instrumentalities in this progress itself. No one who has not taken pains to examine the facts relating to the subject has any adequate conception of how recent this whole movement has been. It dates really from the middle of the last century. In fact, one may say that the full acceptance of the modern standards dates from less than thirty years ago.

We can see in the history of the water supply in Halle, for the last fifty years, a reflection of the whole magnificent development which has been going on the world over. The large may be seen in the small; the cosmos in the microcosmos.

The city of Halle, being situated on a river of considerable size which, except in very exceptional cases, was supplied during most of the year with an abundant supply of water, relied naturally enough in large part upon the stream for the supply of water, over and above what could be provided for by local springs or by wells sunk in the immediate neighborhood of the houses in the public streets or squares.

A private company erected a plant for elevating the river water to a height from which it would flow by gravity down to certain public squares as early as 1474. A second plant was erected near the first by another private company in the year 1564. A continuous conflict between these two undertakings led the city to buy both plants in 1594, and from that time to this the supply of water through a system of pipes has been considered as a city function. At various times private individuals, or companies, laid pipes to bring into the city spring water from the surrounding hills; the whole supply thus furnished, however, never amounting to more than a small per cent. of the total consumption. Down to the year 1867 the water supply consisted

aside from wells, of the water pumped up through this city system directly from the river, without filtration or subsidence, and of the small amount — about 5 per cent. of the total supply — furnished by other systems of pipes.

The water-works had been erected at a point below the center of the city and below the place at which the water of the river had begun to be seriously polluted by the drainage of the streets, houses, and mills. The quality of the water was bad to begin with in the fifteenth century, and it grew steadily worse down to the middle of the nineteenth. Attempts were made to improve it by running the intake pipe along the bed of the river up to a point where the water was of better quality; but this simply palliated the evil to a slight extent.

The water thus supplied was carried through a system of pipes into the public squares to certain public fountains and basins and into cisterns in a few private houses. There were only 134 such individual pipes in the year 1867, supplying 136 houses out of a total of perhaps 2,000 in the city. For all other houses the water had to be carried from the public hydrants or cisterns into the house. The flow was intermittent, necessitating the storing of water in cisterns and buckets, or barrels, for the hours when it was not running through the pipes. It was cheap enough in one sense, as no charge was made for water taken from the public basins or cisterns; expensive, of course, in another sense, owing to the immense labor of carrying the water into the houses, to say nothing of up the three, four, or five flights of stairs.

The water supply drawn from the private wells was, if anything, worse than that taken from the river. A large part of the city was built upon land formerly included within the cemeteries. Geologically the city rests upon a very thin layer of soil, underlaid by porphyry or sandstone, covered sometimes by layers of clay, varied here and there in the higher portions of the city by deposits of brown coal. In consequence of this condition the surface water cannot sink to any great depth, and finds in the course of its sinking no natural filtration; but, on

the contrary, is still further polluted the farther it sinks into the soil by the very composition of the soil itself, and further by the injurious mineral constituents found in the brown coal. The city had, moreover, no system of sewers, but relied upon badly constructed and badly kept cesspools for the temporary care of domestic and industrial waste. This meant that the drippings of the leaky cesspools were constantly flowing into the wells and being pumped up into the houses for drinking and washing purposes. The wells, being naturally sunk at the lowest points — often in the bottom of cellars under the houses—became themselves a sort of cesspool. They became reservoirs of the bilge water of the city, which was thus drunk by the inhabitants of the city, partly undiluted, partly diluted by the inflowing of surface water only a little less dangerous. The wells — the source, perhaps, of fully one-half the supply — had thus become sources of poison and death, instead of sources of life.

That under these conditions the city of Halle should have become one of the most unhealthy cities of Germany is not to be wondered at. It achieved a most unenviable reputation, even in a time when all cities were hotbeds of disease and death. It was a favorite seat of epidemics of all kinds, while the death-rate was abnormally high, even among unhealthy cities. The death-rate always exceeded the birth-rate, and at times by an enormous percentage, down to within fifty years. Seven cholera epidemics visited the city between the years 1830 and 1867. The epidemic of 1867—just before the introduction of the modern water supply — carried off 2,000 people out of a total population of 50,000; whereas in 1873, when other cities suffered, Halle remained almost free — a striking testimonial to the value of a proper water supply. The city was for centuries the favorite abode of typhus, dysentery, diphtheria, consumption, influenza, smallpox, etc.

The prevalence of those diseases whose existence is favored by a bad or inadequate water supply had led to repeated discussions as to the possibility of making improvements in this department of city life. But each attempt failed, owing to the

lethargy of the public and the unwillingness of the city authorities to make the necessary financial sacrifices. The cholera epidemics of 1849 and 1855 gave a new impetus to the rising tide of dissatisfaction with existing conditions, though it was not until the latter part of 1863 that the city council finally decided to take the matter up in earnest.

On the recommendation of the administrative board, it provided for the creation of a joint commission which was to investigate the whole question and make definite recommendations. This commission began its sessions in February, 1864, and made its report on May 23, 1867. It proposed the introduction of a modernized water supply based on a fundamental change in the principles thus far followed by the city in its administration of this department of city affairs. A glance at some of the more important features of this report will be of interest as showing how clearly the general principles of the new system were conceived, though the actual application of them left much to be desired.

After calling attention to the vital relation of potable water to public health, and to the horrible condition existing in Halle at the time, the commission emphasized the equally great necessity of a more adequate supply for purely commercial reasons. It insisted that the city had reached the limit of growth in population and in industry, unless a new and more adequate supply of water could be found.

A careful examination of the qualities necessary to a good water supply for domestic and industrial purposes was followed by a long series of experiments in the neighborhood of the city, resulting in finding what was considered an ample source of good water in a series of gravel beds near the city, in which wells were to be sunk from which the water was to be pumped into distributing reservoirs.

The commission insisted that the city should give up entirely the old system of furnishing free water at public hydrants or public basins, and replace it by a system of furnishing water at a low price on every floor of each house in the city. This

system would involve the prohibition of the use of existing wells, and the compulsory connection of all houses with the pipe system of the city. It was only by the general introduction of the city water into the apartments of the great mass of the people, who lived naturally on the highest floors of the houses, that such a general use of water would be obtained as lay in the interest of the public health, as well as in the financial interests of the water-works themselves, regarded as a productive undertaking. It insisted, moreover, on the adoption of the system of continuous delivery through the pipes, always filled at a steady pressure, instead of the old intermittent system even then in use in many of the large European cities, notably London, by which water was furnished through the pipes only during certain hours of the day, requiring, therefore, a system of reservoirs or cisterns in each house for the storage of water — an inconvenient and expensive method.

The water tariff recommended was based on the number of rooms in the dwelling, rejecting the system in use in many European cities of basing it on the rental value of the premises, as in London and Berlin.

The report contained a great many details relating to the actual introduction of the system, transitory provisions, etc., which we need not notice further here. As a whole, the document may be considered a masterly one, and the policy outlined, which was adopted by the city in the main, marked an epoch in the history of the city and set an example for other cities in Germany, which some of them have been too slow to follow.

The question of municipal ownership and management was disposed of in a brief sentence or two as follows :

> Certain cities have entertained the opinion that they should on principle grant to private companies the right to construct and operate public-service plants, like gas- and water-works. They have become thoroughly convinced within a very short time of the complete erroneousness of such a view and of the damage they have thus done to the public interests. As this city has carefully avoided such a policy in the case of its gas-works, it is certain that it will not consider such a proposition in regard to its water supply — a far more fundamental necessity of life, of far more fundamental importance for

public welfare. We cannot even discuss the question of turning over a plant of this sort to a company whose chief aim is not the public good, but private profit.

This commission urged that the water-works should never be regarded as a source of net profit to the city, but that all earnings over and above running expenses, and the usual payments to the sinking funds, and construction and extension account, should be devoted to reducing the water-rates. In one respect, the calculations of the commission proved to be very inaccurate. It had estimated that a supply of 150,000 to 200,000 cu. m. per day would be ample for many years, and that a supply of 250,000 cu. m. would be sufficient for twenty-five years to come. As a matter of fact, the consumption reached the 150,000 mark within two years, the 200,000 mark within six years, and the 250,000 mark within ten years, and in a little more than twenty years surpassed 360,000 cu. m. per day. And that in spite of the fact that the city authorities had begun to discourage the too liberal use of water by the more general introduction of the water meter. This, however, has been the common experience wherever a liberal supply of good water has been introduced. The consumption has far exceeded the estimates, showing, after all, how inadequate the conception of even the most advanced thinkers and experts as to the willingness and eagerness of the people to avail themselves of the advantage of a more liberal supply of this necessity and luxury of life.

There was practically no use of water made at first for flushing water-closets or sewers, nor for bath-tubs in private houses. And even now the sanitary closet and stationary bath-tub, with their liberal use of water, are the exception in the houses of even the better-situated middle classes. With every passing year the use of these modern comforts or necessities becomes more general, and the average quantity of water used per head and day tends to increase in a more rapid ratio than the population. The rapidly increasing use of water in the industries tends to bring about the same result, though in some cases the industrial plants have reached such a size that they find it of

advantage to put in their own water plants, thus decreasing the demands on the city works.

The total consumption has risen from 1,100,000 cu. m. in 1869, the first full year, to over 4,050,000 cu. m. in 1900.[1] This has necessitated several reconstructions of the works, increase of collecting plants and reservoirs, and additional purchase of land. The city authorities have year after year faced the situation of having in some way to discourage the rapidly increasing use of water, or else to make new and costly extensions. The actual policy adopted has been a sort of compromise. Extensions have been made to provide for larger supplies, but greater care has also been taken to prevent waste, and the use of water has been discouraged to some extent by a change in the system of water charges. The average rate of consumption per head and per day was 63 liters in the year 1869. This rose steadily to its maximum of 120 liters in 1883, and then gradually fell to 85 (90 quarts) in the year 1899–1900—the population having risen from 50,000 to a little over 130,000. It will be seen that the supply is still far from being a liberal one as tested by the prodigality of many American cities.[2]

As noted before, the steady increase in the demand for city water had forced the city to enlarge its water farms and its collecting plants, as well as its reservoir facilities. Owing to the great drafts on its available supply, the quality of the water had not been maintained. The presence of iron in considerable quantities in certain of its wells and the tendency to the growth of algæ in the pipes occasioned at times an unpleasant discoloration of the water. After many attempts to grapple with the difficulty, the policy was adopted of de-ironizing and filtering the entire supply, thus making it as pleasing in color as in taste.

The course of development in the water policy of the city may be traced in its system of water-rates. Prior to April 1, 1886, the water for domestic purposes was furnished free of

[1] The new water supply was first turned on in a part of the city in April, 1868, and by September the entire city had been supplied with it.

[2] Chicago, 600 quarts; New York, 484; Scranton, Pa., 1,300.

charge to all houses which were assessed to the city taxes. "Domestic purposes" included drinking, cooking, washing, scrubbing, flushing the floors, bathing, sprinkling of the streets, and sprinkling of the courtyards. All the water used for other purposes was to be paid for at the rate of 11 pfennigs per cubic meter; the amount being measured by meter or estimated at a lump sum. The city paid for all water used for domestic purposes out of the city treasury at about one-half the rate charged other consumers. There were discounts, increasing with the amount consumed.

In order to make headway against the rapidly increasing use of water, which necessitated the continual increase of the city plant at an increasing cost, the city authorities adopted a new water tariff, going into effect April 1, 1886. According to this schedule, water was to be delivered free of charge, up to 25 liters per day and per occupant, for domestic purposes in the above sense to all houses, subject to municipal taxes. All water in excess of this amount was to be paid for at the rate of 12 pfennigs per cubic meter, instead of 11. The city could at any time put in a meter to test whether the water consumed in any house exceeded the 25 liter maximum. The city paid for the water furnished free for domestic purposes, as before, at about one-half rates. This increase in the price of over 9 per cent., and the more general introduction of the meter, produced a marked effect at first in the consumption of water. The total consumption decreased during the year 1886–87 by about 9 per cent., as compared with the preceding year, while the average income per cubic meter rose by 1.28 pfennigs. The more general introduction of the meter led to the discovery of leaks in the pipes, by remedying which much waste was prevented, and the diminished demands on the sources of supply improved the quality of the water. The sum paid out of the city treasury for domestic water diminished by fully 15 per cent. The total consumption, which had reached its maximum of over 3,400,000 cu. m. in 1884–85, fell off to less than 3,000,000 cu. m. in 1886–87.

This effect was, however, only temporary, the consumption rising rapidly again to over 3,600,000 cu. m. in 1891–92. The result was another agitation for the general introduction of the meter, accompanied with an increased price to provide against the time when new and extraordinary expenses must be incurred for extension of the plant. These deliberations extended over a year or two, and received in the meantime an entirely new turn by the passage of the General Municipal Revenue Act of July 14, 1893. This law prescribed that cities should so manage all industrial undertakings in their care that they should defray their own expenses, including running expenses, interest, and sinking funds, in such a way that they should not be in any respect, or to any extent, a charge on the city treasury. This provision put an end to the policy of the city, pursued since the beginning, of furnishing water for domestic purposes free to private individuals at the cost of the city treasury. As the city, being thus by far the largest purchaser, had been in the habit of paying from 25 per cent. to 50 per cent. of the total expense of the works, it was evident that an entirely new system of finance would have to be adopted. The water-works commission elaborated a scheme which was recommended to the city authorities. It embraced three features:

1. No water to be furnished free, and all to be sold through meters.

2. Uniform price of 12 pfennigs per cubic meters.

3. No charge for meter rent to private houses subject to city taxes.

The city tax commission worked out an entirely different plan, which was subsequently adopted. This method included the following provisions:

1. All houses should be supplied with meters.

2. For a supply of 25 liters per day and per person a water tax was to be collected from the occupants of each house equal to 2 per cent. of the rental value of the dwellings.

3. All water in excess of this amount to be paid for at the rate of 16 pfennigs per cubic meter by the house-owner, except

that water used in the manufacture of beer shall be sold at the price of 12 pfennigs per cubic meter.

It will be seen that here is an attempt to shift the charge for water from the landlord to the tenants. This schedule remained in force, however, only two years, as the dissatisfaction was too great. A new regulation went into effect April 1, 1897, which simplified matters very much. It prescribed a single uniform rate of 16 pfennigs per cubic meter as ascertained by the meter, which was prescribed in all cases, the fee to be collected from the landlord, who is made responsible to the city in all cases, though he may make such contracts with his tenants in regard to the matter as he may be able.

It will be seen that this constituted a real increase in the price of water, even over the system in vogue in the immediately preceding years. The change made in 1895 amounted to a real increase in the rates of over 30 per cent. The average income of the water-works per cubic meter was 11.62 pfennigs in 1894–95 and 15.32 in 1895–96, or nearly 32 per cent. increase. The result of this great increase in the rates has been to convert the water-works into a profit-producing branch of the city administration. Prior to 1895–96 they appeared in the budget as a source of outlay, and since that time as a fruitful source of income.

In comparing the figures as to use of water in Halle and in an American city we must keep the following facts in mind: In the first place, the system of water-closets, now almost universal in the large American cities, has not been as yet extensively employed in Halle. The system of city sewers is constructed primarily to carry off the surface rain water, the domestic kitchen water, and the waste water from factories. The privies, or closets, for fecal matter are not connected with the sewers as a rule. Direct connection is, indeed, forbidden by police regulations. Even where the water-closet is in use, the matter must flow first into a cesspool, which is so arranged that the solid matter is deposited, the water only being allowed to flow off into the sewers. But, as a matter of fact, the dry closet is the one chiefly in use in the city. On March 31, 1900, there

were in the city 7,224 water-closets, the population being in round numbers 130,000, or one to every eighteen inhabitants, or, taking five as the average number in a family, one to every three and a half families. The style of building in Halle is that of large houses containing many apartments and flats. It was estimated that of the 5,082 residence houses in the city in the year 1899 about 1,144 — less than one-fourth — were equipped with water-closets, and these only with the indirect connection with the sewer. This means, of course, a comparatively slight use of water for this purpose, which constitutes a considerable drain on the water supply in our American cities. The number of such water-closets has been, however, increasing very rapidly of late years. The following table shows the increase for the last twelve years:

| | |
|---|---|
| 1888 - - - | 1,648 |
| 1891 - - - | 3,924 |
| 1893 - - - | 4,565 |
| 1895 - - - | 5,253 |
| 1897 - - - | 5,897 |
| 1899 - - - | 6,865 |
| 1900 - - - | 7,224 |

The same thing may be said of the use of bath-rooms in private houses. In 1900 the number of bath-tubs connected with the water pipes was only 2,447, and probably out of the more than 5,000 residence houses, containing over 30,000 dwellings, not more than 1,000 houses at the outside, and far less than one-tenth of the dwellings, had any arrangements for bathing at all, except the old-fashioned *Sitzbad*, or movable tub. It is plain that only a fraction of the amount of water is used in such a city as in a corresponding American one for a similar purpose. The number of bathing connections has been likewise rapidly increasing. There were

756 in the year 1888
1,496 in the year 1892
1,565 in the year 1894
1,862 in the year 1896
2,249 in the year 1899
2,447 in the year 1900

There are almost no stationary wash-tubs, equipped with hot and cold water, in the average dwelling, and the liberal use of water connected with such devices is notable by its absence.

The number of dwellings in the city increased from 25,056 in 1894 to 30,244 in 1900, an increase of nearly 21 per cent.; while the number of water-closets had increased over 58 per cent., and the bath connections over 56 per cent.

The city is now preparing to introduce a modern system of drainage, which will doubtless be based on the "everything-into-the-sewer" plan in such general use in this country.

The financial management of the water-works has been admirable, and the reports show the income and expenditures in such a way as to enable one to trace out satisfactorily the financial development of the enterprise from the first. It does not appear, however, from the reports of the department itself just how much the city has had to pay year by year on account of water furnished free. This is stated in the budget account of the city.

The department has been charged with everything assigned to it from the first by the city. The first plant was created on land owned by the city, but the department was obliged to pay for it exactly as if it had had to purchase it from private parties. All extensions of plants have been defrayed out of current earnings or from loans, the interest and amortisation of which the department has to meet from its own income. No allowance seems to have been made in the accounts for taxes which a private company would have had to pay the city, or for the value of the franchise which might have been exacted from such a company. One cannot ascertain, therefore, from the reports themselves whether city management has been more or less profitable to the city treasury than private management would have been.

The estimate of present value seems to be quite within the mark. Deductions for depreciations seem to be very liberal, running all the way from 1 per cent. on the value of the real estate, to 20 per cent. on the value of water meters, and averaging

about 25 per cent. of the total income. The total value of the plant March 31, 1900, was given at 2,877,194.43 marks, which is supposed to be a fair cost value for the plant such as a private company would offer, not counting the value of the franchise. As a matter of fact, it is probably much lower than the cost of duplication. Against this, however, is to be set off a debt of 2,082,000 marks, and other items, leaving, when deducted, the net cash value of the plant to the city at the present time of 592,897 marks. The report for 1899–1900 shows that after paying all running expenses, after meeting all charges for interest and sinking fund, after setting aside a liberal sum for depreciation and for a renewal fund, the works yielded a net return of over 153,343 marks, sufficient to pay a 5 per cent. dividend on a capital of 3,066,850 marks. This equals a dividend on the actual cash value of the plant over and above all indebtedness of over 25 per cent. Of this sum 130,000 marks were paid as net profits into the city treasury, and 23,343 added to the reserve fund.

A charge has always been made, until recently, for the use of meters, which has constituted a considerable addition to the cost of water to the small consumer. In the case of new streets, laid out by real-estate speculators, the cost of extending the water main to the houses in such street has been assessed against the person laying out the street. In the year 1898 a new plan was adopted. The full cost is assessed in the first instance now, as formerly, against the undertaker. As soon, however, as the total water-rates collected for such houses amount in any one year to one-third of the cost of such extension, the city water-works will then reimburse the builders for such outlay. From such total outlay, however, will be deducted each year for deterioration 7½ per cent. of the amount.

The city has steadily increased its outlay for water for public purposes, such as fountains, public comfort stations, street sprinkling, etc. For all such water it must pay the water-works department at the same rate as other consumers.

It is plain from the above account that, while the city of

Halle has not been notable for absolutely new departures in the policy relating to the water supply, it has at least entered the list of modern cities, and has kept pace with the most advanced of European cities of its size in this regard; not only managing its affairs in a sound manner from a business point of view, but showing an ever-increasing appreciation of the social and industrial aspects of the problem.

# APPENDIX.

## Note on the Cemeteries.

The question of the proper relation of a municipal administration to the disposal of the dead is an important one. European cities have taken, on the whole, a very different attitude toward this question from American cities. They have evidently regarded it as not only a proper, but necessary function of the city, not merely to provide facilities for the sanitary disposal of dead bodies, but also for their interment in a manner corresponding with the prevailing ideas of decency and propriety in the community, and also at charges which shall be within the reach of even the poorest members of the same. This seems, at any rate, to have been the idea underlying the policy of the city of Halle toward the cemetery system, if one may be entitled to make such inference from the actual policy adopted by the city in this regard. The city owns at present three large cemeteries —one in the heart of the city, and two at the northern and southern extremities, respectively. The cemetery in the heart of the city is now practically closed to further interments, except those from families who own hereditary lots in the cemetery, ownership to which is not granted in fee simple, but only for the period of one hundred years, or, rather, until 1983, beyond which time no further concessions can be granted. The management of these cemeteries is most methodical. In the old city cemetery, which is one of the most picturesque in Europe, the outer wall is lined with a series of grave lots covered with arched roofs, very similar to those which one often sees in Italy. These lots are family concessions, conceded for a period of one hundred years, reverting to the city when the family dies out, or whenever the lots are habitually neglected, or the persons responsible therefor fail to pay the annual tax of $2.50. Another portion of the cemetery is assigned to the so-called hereditary grave lots, 7 feet by 3 feet. These may be obtained likewise until the

year 1983 for sums varying from 200 to 600 marks ($50 to $150). They revert also to the city when the parties cease to care for them. A number of such lots may be taken together so as to provide for a family burial lot, but each lot must be registered and paid for separately.

The same arrangement is made in the other two cemeteries, and, in addition, further facilities for burial are provided for parties who do not wish to purchase hereditary grave lots in the following way: Most of the cemetery is divided into the so-called row-grave tracts, the grave lots being numbered consecutively and to be used in order. These lots are conceded or leased for the term of twenty years; after which they revert to the city and may be sold again either to the same party or to others for fresh interments. For burial in these row graves the fee exacted varies with the ability of the person to pay, as shown by his assessment to the income tax, and ranging from 75 cents for persons assessed to the income tax at a lower rate than $225 up to $7.50 for persons having an income of $1,500 a year and over. The fees for paupers are paid by the city.

By the use of this device it is possible to utilize the cemetery over and over again for interments at periods of twenty years. In some other cemeteries in Germany this period is considerably shortened, being reduced in some places to five years. This custom, which is so repulsive to American ideas, is a necessary one, and naturally incident to a country of crowded population.

The city provides, for those who choose to use them, a system of funeral services, including all costs from the time of transferring the body from the residence to the mortuary chapel, up to the final burial. These charges are also fixed by city ordinances, and on a graded scale, corresponding to the expense which the survivors are able or willing to incur. The charge for the hearse is also based on the income of the parties, as shown by the income tax, and varies from $1.25 to $6. The charge for carriages is likewise fixed by ordinance, varying from 62½ cents for one-horse cabs to $1.25 for two-horse cabs. People dying within the district assigned to a certain cemetery

must be buried there, unless they own hereditary lots in another cemetery, or unless permission is obtained from the city authorities. The Jewish congregation in the city has a cemetery of its own. An indication of the close relation between the state and religion is found in the fact that no address may be made in the cemetery in connection with the funeral services by any layman except with the consent of the clergyman having jurisdiction.

The city accepts sums of money as trust funds from which the expense of caring for the graves, etc., may be defrayed.

The privilege of furnishing hearses and carriages at the regular tariff fixed by the city is leased to a private individual, who, in return for the privilege, must pay to the cemetery fund 10 per cent. of his gross income and at least 1,000 marks per year. It is an interesting social fact to note that in 1899–1900, of the 315 occasions when a hearse was employed in connection with funerals, 51 belonged to the first class, 191 to the second, 28 to the third, and 45 to the fourth.

The city received three additional cemeteries in the annexed districts, which have become a part of the city since April 1, 1900, although two are so located that new interments will have to be prohibited before long and new locations will have to be provided.

The management of these cemeteries is intrusted to a permanent deputation or joint commission of the administrative board and the city council, consisting of six members—two from the administrative board and four from the city council. This commission is expected to administer the cemeteries in such a way that they will pay for themselves, and not be a charge on the general revenue of the city; nor does the city, on the other hand, expect a net revenue from the management of the cemeteries.

It will be seen from a study of the above facts that an effort is made on the part of the city administration to provide facilities for decent burial at moderate rates. In this policy the city seems to be following a line of development, which has taken place naturally and easily, growing out of historic conditions, rather than anything which has been adopted as a result of conscious reflection or thought.

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